Dept. of Linguistics: Publication No. 17

DRAVIDIAN LINGUISTICS

(SEMINAR PAPERS)

391

Editors

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MALAI UNIVERSITY
NAMALAINAGAR
INDIA
1969

DRAVIDIAN LINGUISTICS
(Seminar Papers)

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(SEMINAR PAPERS)

Proceedings of the
Seminar on Comparative Dravidian
Held at the
Annamalai University, Annamalainagar
January 11-14, 1968

Edited by

S. AGESTHIALINGOM and N. KUMARASWAMI RAJA

ANNAMALAI UNIVERSITY
ANNAMALAINAGAR
INDIA
1969

Rs 7 00

Department of Linguistics
Publication No. 17
Published with the UGC grants
First Edition, April 1969
Printed at Azhahu Printers, Chidambaram

Preface

This book is the outcome of the proceedings of the Seminar on Comparative Dravidian which was conducted from the 11th to the 14th of January, 1968, of which Dr. S. Agesthialingom was the Director and Messrs. N. Kumaraswami Raja and G. Vijayavenugopal were the Secretaries. The purpose of the seminar was to promote a more systematic and scientific study of the Dravidian languages both descriptive and comparative.

The Centre of Advanced Study in Linguistics, Annamalai University, under whose auspices the seminar was conducted has already organised four other seminars on Grammatical Theories in Malayalam, Telugu, Kannada and Tamil at various universities, viz. Kerala, Osmania, Mysore and Annamalai respectively.

The proposal for holding the present seminar was first made in August 18, 1966 by Mr. M. Shanmugam Pillai, the then Director-in-charge of the Centre. A fresh invitation was extended to the participants after Dr. S. Agesthialingom took charge as the Director of the Advanced Centre.

The seminar was inaugurated by Mr. P. Chandra Reddy, the then Vice-Chancellor of the Annamalai University on the 11th January, 1968. There were five sessions altogether and each session had a chairman to guide the discussion. Prof. Bh. Krishnamurti presided over the first session. In the second session Prof. S. Agesthialingom took the chair. The third was presided over by Dr. Andrée Sjoberg, the fourth by Dr. John Marr and the fifth by Dr. M. Andronov. Scholars belonging to the field of Dravidian linguistics from U. S. A.,

U.S.S.R., U. K., France and from all over India participated in the seminar. Every paper read at the seminar was followed by a lively discussion which threw much light on controversial points. Most of the suggestions offered during these discussions have been incorporated in the revised versions of the papers that have been printed here.

Copies of the papers presented at the seminar were despatched to scholars in the field. The following are the extracts of the opinions expressed by some of the leading linguists in the field.

I find the whole collection most impressive and substantial. I can only congratulate the Annamalai University on the excellence of the Seminar, and hope that the collection will be published soon. It is a pleasure to know that the young scholars in the field are working so successfully at the many problems that exist in Dravidian linguistics, and that we may hope to have more results from them in future. —*Prof. M. B. Emeneau*

I do hope that it will be possible to publish them in print and in a more lasting form. Any way, even in this form they are, as far as I can see, a very valuable contribution to Dravidian linguistics and a manifestation of what is being done now in this field. —*Prof. F. B. J. Kuiper*

Encouraged by such appreciative remarks from scholars, we decided to publish the seminar papers with necessary revisions. We thank the participants of the seminar for having sent us the revised versions of their papers in time. The only paper that was not presented in the seminar is that of Dr. R. E. Asher. His paper could not reach us in time to be included in the seminar proceedings.

The transcription used in this book is as follows: Vowel length is represented by two dots after the concerned vowel.

For consonants other than *ḻ*, the *Tamil Lexicon* (1924–39) system is followed. Because of the shortage of types in the press, *ṟ* is sometimes represented as *ṟ̤*.

In order to avoid repetitions in the article bibliographies provided by the respective authors, we decided to give a general bibliography at the end of the book. The general bibliography thus includes all references which were found in more than one article. References not in the general bibliography are appended to each article. The abbreviation (f.) in the bibliography stands for 'forthcoming' and (f.a.), (f.b.) etc. stand for the order in which the 'forthcoming' publications are arranged.

We are grareful to Mr. S. V. Shanmugam who gave us some useful suggestions for the general layout of this book. Our thanks are also due to Mr. P. Kothandaraman for assisting us in going through some of the proofs. We are also indebted to the University Grants Commission without whose assistance the seminar and this publication would not have materialized. We should also thank the Annamalai University authorities and its Vice-Chancellor, Dr. S. P. Adinarayan for their continued support to the publication activities of this department. M/s. Azhahu Printers should be thanked for the neat execution of this work.

S. Agesthialingom
N. Kumaraswami Raja
Editors

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DRAVIDIAN LINGUISTICS
(Seminar Papers)

Passive in Dravidian[1]

S. Agesthialingom

ANNAMALAI UNIVERSITY

It happens very often that we accept the opinions of great scholars without giving much thought and proper scrutiny. This may be due to lack of adequate theory which will enable us to question the validity of such opinions. When adequate theories are developed the problems become clearer and we attempt to solve them with proper techniques supplied by these theories. One of such problems that one can find in Dravidian Linguistics is the myth about "Passive".

Dr. Caldwell, the father of Dravidian Philology, while dealing with passive voice in his Comparative Grammar, said that "The Dravidian verb is entirely destitute of a passive voice properly so called, nor is there any reason to suppose that it ever had a passive".[2] This view seems to be shared by many.[3] Dr. A. C. Chettiar in his ably written article "Passive voice in Tamil" has convincingly argued that *–paṭu–* denotes passivity, the occurrence of which can be seen even from the days of Tolkappiyam, the earliest extant work in

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[1] I wish to express my thanks to Prof. Fred W. Householder and Prof. Robert B. Lees for their useful comments and suggestions.

[2] Caldwell, 1961, p. 463

[3] Arden, 1955, p. 101, Hodson, 1864, p. 39 and Cole, 1867, p.43

Tamil.[4] He has adduced his stand by quoting many occurrences from Tolkappiyam.[5] It is true that expressions like

1. *eḻuttu eṉappaṭupa* 'those which are called letters'
2. *col eṉappaṭupa* 'those which are called words'

denote passivity by *-paṭu-*, when it is annexed to the infinitive of the verb *eṉ* 'to say'. This is not unnoticed by Dr. Caldwell and he himself discusses it in his grammar and what he meant by the above quotation was that passivity is not expressed by regular inflectional suffixes.[6] The stand that *-paṭu-* with the infinitives of the main verbs forms a phrase is also questioned by Dr. A. C. Chettiar[7] which need not concern us much now.

But confusion arises when we find expressions like

3a. *veṭkappaṭṭa:ṉ* (Ta.) 'he was ashamed' (lit. experienced shame – he)

3b. *siggupaḍḍa:ḍu* (Te.) ,,

3c. *na:cike paṭṭanu* (Ka.) ,,

Caldwell gives only the Tamil forms. These are given as forms denoting passivity.[8] *paṭu* in similar expressions functions as intransitive whose transitive counterpart can be seen in forms like

4a. *veṭkappaṭuttiṉa:ṉ* (Ta.) 'he made (someone) shy'

4b. *sigguparacenu* (OTe.) ,,

---

[4]Chidambaranathan Chettiar, 1938, pp. 124-33 and 1939, pp. 22–34

[5]*eḻuttu eṉappaṭupa* (Tol. Eḻu. 1), *col eṉappaṭupa* (Tol. Col.158), *peyar eṉappaṭupavai* (Tol. Col. 160), *viṉai eṉappaṭuvatu* (Tol. Col. 198), *iṭai enappaṭuva* (Tol. Col. 249)

[6]"It is evident that this compound of *paḍ-u* to suffer, with an infinitive or noun of quality, is rather a phrase than a passive voice." Caldwell, 1961, p. 467

[7]Chidambaranathan Chettiar, 1939, p. 23

[8]Caldwell, 1961, p. 466

4c. *na:cike paḍisidanu* (Ka.) 'he made (someone) shy'
5a. *kaṣṭappaṭuttiṉa:ṉ* (Ta.) 'he made (someone) suffer'

and they can also be very easily transformed into passive like

6a. *kaṣṭappaṭuttappaṭṭa:ṉ* (Ta.) 'He was made to suffer', etc.

These paradigms clearly indicate that *paṭu* in *veṭkappaṭu* is only intransitive and not passive.[9]

Another set of expressions like

7a. *aṭipaṭṭa:ṉ* (Ta.) 'he got beating'
7b. *debbatinna:ḍu* (Te.) ,,
7c. *peṭṭutinda* (Ka.) ,,
7d. *aṭipeṭṭu* (Ma.) ,,
8a. *iṭipaṭṭa:ṉ* (Ta.) 'he got knocked'

which are erroneously translated by many of us as 'he was beaten' and 'he was knocked', respectively and given by many scholars as passive forms are often equated with forms like

9a. *aṭikkappaṭṭa:ṉ* (Ta.) 'he was beaten'
9b. *koṭṭabaḍḍa:ḍu* (Te.) ,,
9c. *hoḍeyalpaṭṭa* (Ka.) ,,
9d. *aṭikkappeṭṭu* (Ma.)[10] ,,

Though *aṭipaṭu* and *aṭikkappaṭu* can take words like *enna:l* 'by me', etc. as in

10a. *avaṉ eṉṉa:l aṭipaṭṭa:ṉ* (Ta.) 'he got beating because of me'

11a. *avaṉ eṉṉa:l aṭikkappaṭṭa:ṉ* (Ta.) 'he was beaten by me'

they denote two different things altogether. In the former the suffix *-a:l* in *eṉṉa:l* denotes just instrumentality as in

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[9]Arden, 1954

[10]Caldwell, 1961, p. 467, Jothimuththu, 1965, pp. 164–5 and Arden, 1954, p. 235

12a. *avan̲ en̲n̲a:l vanta:n̲* (Ta.) 'he came because of me' and thereby the sentence 10a means 'he got beating because of me'. Notice that the actor of the action beating is not *en̲n̲a:l*. But in the case of the other sentence (11a) the action of beating is done by *na:n̲* 'I' which is expressed by the instrumental form *en̲n̲a:l* 'by me'. Though *en̲n̲a:l* appears as instrumental in 11a it is the subject of the action beating. This can be very easily explained by setting up

13a *na:n̲ avan̲ai PAS aṭitte:n̲* 'I beat him+passive'

as the underlying sentence from which 11a (Fig. 2) can be derived by applying certain transformational rules which transform active sentences into passive. Sentence 13a clearly shows the relation that we find between *avan̲* 'he' and *aṭi* 'beating'. Though both the sentences 10a and 11a have one and the same forms *avan̲* 'he' and *en̲n̲a:l* 'by me' they are different in their derivational history and they denote different things; *avan̲* and *en̲n̲a:l* in 11a are derived from *avan̲ai* 'him' and *na:n̲* 'I' respectively from 13a when it is transformed into passive. But this is not the same case with *avan̲* and *en̲n̲a:l* in 10a. This necessitates the recognition of two types of 'instrumentals', one which we will call *instrumental proper* (as in 10a) and the other *instrumental derived* (as in 11a) derived from a subject of another sentence when a passive transformation takes place. What is subject in the active sentence is transformed into instrumental and the accusative is converted into nominative in the passive sentence.

na:n̲ avan̲ai PAS *aṭitte:n̲* → *avan̲ en̲n̲a:l aṭikkappaṭṭa:n̲*

ne:nu va:ṇṇi PAS *koṭṭæ:mu* →

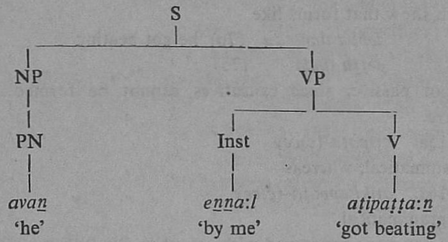
na: ce:ta va:ḍu koṭṭabaḍḍa:ḍu

na:nu avanannu PAS *hoḍede* →

nanninda avanu hoḍeyal paṭṭa

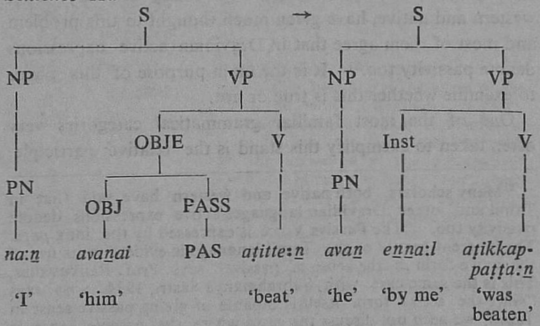
ña:n avane PAS *aṭiccu* → *avan enna:l aṭikkappeṭṭu*

Sentence 10a



(Figure 1)

Sentence 11a



(deep structure) → (surface structure)

(Figure 2)

Mention also has to be made that at least in Telugu and Kannada we find forms like

14b. *debba tinipinc æ:nu* (Te.) 'I caused him to receive a blow'

14c. *peṭṭu tinniside* (Ka.) ,,

which show that forms like

debba tinna:ḍu (7b) 'he got beating'

peṭṭu tinda (7c) ,,

are not passive, since causatives cannot be formed from passive.

15a. *aṭipaṭa-(c)cey*

is grammatical, whereas

16a. *aṭikkappaṭa-(c)cey*

is ungrammatical.

We are more concerned with another important question namely whether one and the same verbal form denotes both activity and passivity in Dravidian. Many scholars, both western and native, have given much thought to this problem and most of them agree that in Dravidian active expressions denote passivity too.[11] It is the main purpose of this paper to examine whether this is true or not.

One of the most familiar grammatical categories very often taken to exemplify this stand is the relative participle.

---

[11]Many scholars, both native and western have said that in Tamil and other Dravidian languages active expressions denote passivity too. "The Passive Voice is expressed by the infix *paṭu*. The inherent beauty of the Tamil language is evident in its use of the active form in the sense of passive" says Prof. Ilakkuvanar. This is the same case with Subrahmanya Sastri, 1934, who says "since the active form itself is capable of giving passive sense in Tamil, we need not discuss the cases where the passive sense is conveyed in some of the examples noted above" (P. 151). Mention has to be made about K. Subramania Pillai and G. Devaneya Pavanar who are also of the same opinion that active expressions denote passivity too. For more details see, Ilakkuvanar, 1946, pp. 133–4 and 1961, p. 153, Subramania Pillai, 1939, p. 137, and Devaneya Pavanar, 1945, p. 117

While dealing with passive voice, Dr. Caldwell says "Occasionally Dravidian active or transitive verbs themselves are used with a passive signification, without the addition of any intransitive auxiliary whatever. Relative participles and relative participial nouns are the parts of the verb which are most frequently used in this manner........".[12] Dr. Andronov, while dealing with participle, in his booklet 'The Tamil Language' says "The participle has no voice, one and the same form may have either active or passive meaning on the context".[13] The oft-quoted examples given by scholars are

17a.	*paṭitta pa:ṭam*	(Ta.)	'the lesson that someone read'
17b.	*cadivina pa:ṭham*	(Te.)	"
17c.	*o:dida pa:ṭha*	(Ka.)	"
17d.	*paṭhicca pa:ṭham*	(Ma.)	"

---

[12]Caldwell, 1961, p. 465

[13]Dr. Andronov, 1965, while dealing with participles in his booklet, says "A participle has active meaning if the agent of the action it denotes is identical with the word it qualifies : a participle has passive meaning if the agent of the action it denotes is not identical with the word it qualifies. In the latter case the word denoting the agent of the action is in the nominative: *pa:ṭam paṭitta paiyan̲* 'the boy who has read the lesson' but *paiyan̲ paṭitta pa:ṭam* 'the lesson read by the boy' (p. 33). It has already been pointed out that the expression *paiyan̲ paṭitta pa:ṭam* is considered as passive because of misleading English translation. This phrase is derived from the sentence *paiyan̲ pa:ṭam paṭitta:n̲* 'the boy read the lesson' and the subject–predicate relation that exists between *paiyan̲* and the verb *paṭi* is kept in the phrase also, and it has to be translated as 'the lesson that the boy read'. Note that the the subject *paiyan̲* is only in the nominative form and not in the instrumental as in *paiyan̲a:l paṭikkappaṭṭa pa:ṭam* 'the lesson read by the boy'. The argument "a participle has passive meaning if the agent of the action it denotes is not identical with the word it qualifies" is also untenable. In expressions like *paiyan̲ paṭitta paḷḷikku:ṭam* 'the school in which the boy read', *paiyan̲ paṭitta kaṇṇa:ṭi* 'the glasses with which the boy read' the nouns qualified by the participle are not identical

which are very often translated as 'the lesson that was read'. It has already been pointed out in one of my earlier papers[14] that the English translation misleads us. Dr. Andronov in an article says that passivity or activity of the construction depends "on the order of words and their lexical meaning".[15] We can very easily cite many examples (as noticed by him in the case of *pa:rtta paiyaṉ* 'the boy who saw (someone)' / 'the boy whom (someone) saw' where the meanings of the individual words do not help us to decide one way or the other. For example,

18a. *ku:ppiṭṭa paiyaṉ* (Ta.)

can mean either 'the boy who called' when the phrase is derived from a sentence like

19a. *paiyaṉ ya:raiyo: ku:ppiṭṭa:ṉ* (Ta.) 'the boy called someone'

or can mean 'the boy whom someone called' when it is derived from a sentence like

20a. *ya:ro: paiyaṉai ku:ppiṭṭa:rkaḷ* (Ta.) 'someone called the boy'.

The ambiguity that exists in such expressions (18a) is due to the fact that one and the same expression is derived from more than one source sentence (19a and 20a).[16]

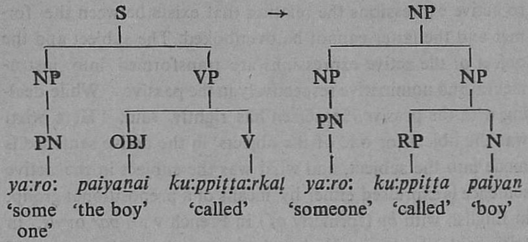
---

with the agent of the action *paiyaṉ*. Yet no one will say that they are passive giving the meanings, 'the school read by the boy' and 'the glasses read by the boy'. The relation we find between *paḷḷikku:ṭam* and *paṭi*, and *kaṇṇa:ṭi* and *paṭi* in the underlying sentences *paiyaṉ paḷḷikku:ṭattil paṭitta:ṉ* 'the boy read in the school' and *paiyaṉ kaṇṇa: ṭiya:l paṭitta:ṉ* 'the boy read with the glasses' are kept in the derived phrases too. It is also the same case with the phrase *paiyaṉ paṭitta pa:ṭam* 'the lesson that the boy read'. Nothing in the structure warrants the translation as passive.

[14]Agesthialingom, 1964

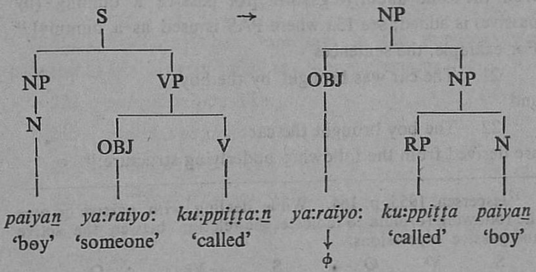
[15]Andronov, 1959, p. 249

[16]For a detailed study of such ambiguities in Tamil, see Agesthialingom, 1965, pp. 8–17



(Figure 3)

ya:ro: paiyaṉai ku:ppiṭṭa:rkaḷ → *ya:ro: ku:ppiṭṭa paiyaṉ* → *ku:ppiṭṭa paiyaṉ* 'the boy whom (someone) called'



(Figure 4)

paiyaṉ ya:raiyo: ku:ppiṭṭa:ṉ → *ya:raiyo: ku:ppiṭṭa paiyaṉ* → *ku:ppiṭṭa paiyaṉ* 'the boy who called (someone)'

Before going into the details of the issue whether expressions like *paṭitta pa:ṭam, cadivina pa:ṭham, o:dida pa:ṭha, paṭhicca pa:ṭham*, etc. are passive, let us inquire as to what is after all passive. When we talk about passive in opposition

to active expressions the relation that exists between the former and the latter cannot be overlooked. The subject and the object of the active expressions are transformed into instrumental and nominative respectively in the passive. While dealing with the passive, Jespersen has rightly said, "Here what was the object (or one of the objects) in the active sentence is made into the subject, and what was the subject in the active sentence is expressed either by means of a prepositional group, in English with *by* (formerly *of*) in French with *par* or *de*, in Latin with *ab*, etc., or in some languages simply by means of some case form (instrumental, ablative)".[17]

Generative grammarians have shown the relation between active and passive sentences by deriving both the sentences from the same underlying form [for passive a dummy (by passive) is added; see 13a where PAS is used as a dummy].[18] For example, the sentences

21. The car was brought by the boy

and

22. The boy brought the car

are derived from the following underlying structure:[19]

---

[17]Jespersen, 1955, p. 164. While dealing with passive he uses the following formula to indicate the relation betwen the active and passive expressions.

S	V^a	O		S		V^p		O
Jack	loves	Jill	=	Jill	is	loved	by	Jack

Jack : $S^a = O^p$
Jill : $O^a = S^p$

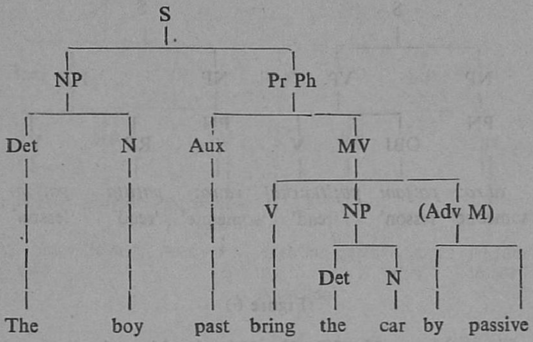
The same kind of formula is given by Nichols in a slightly different way.

N_1 V(active) $N_2 \rightarrow N_2$ V(passive)

See also Nichols, 1965, p. 71

[18]Katz and Postal, 1964, pp.33–6 and Chomsky, 1965, pp.128–31

[19]Chomsky, 1965, p. 130



(Figure 5)

In the light of what has been said in the previous two paragraphs we can very safely say that expressions like

23a. *paṭitta pa:ṭam* (Ta.)

23b. *cadivina pa:ṭham* (Te.)

23c. *o:dida pa:ṭha* (Ka.)

23d *paṭhicca pa:ṭham* (Ma.)

are not passive. These are all noun phrases derived from sentences like

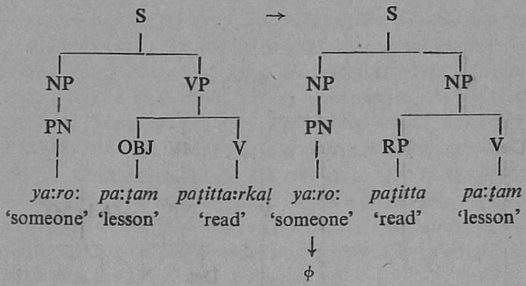
24a. *ya:ro: pa:ṭam paṭitta:rkaḷ* (Ta.)

24b. *evaro: pa:ṭham cadivæ:ru* (Te.)

24c. *ya:ro: pa:ṭha o:dida* (Ka.)

24d. *a:ro: pa:ṭham paṭhiccu* (Ma.)

by making use of appropriate transformational rules. They are derived from the above active sentences.



(Figure 6)

These phrases (23a, 23b, 23c, 23d) should not be confused with the phrases

25a. *paṭikkappaṭṭa pa:ṭam* (Ta.) 'the lesson that was read (by someone)'

25b. *cadavabaḍḍa pa:ṭham* (Te.) ,,

25c. *o:dalpa:ṭṭa pa:ṭha* (Ka.) ,,

25d. *paṭhikkappeṭṭa pa:ṭham* (Ma.) ,,

which are derived from sentences like

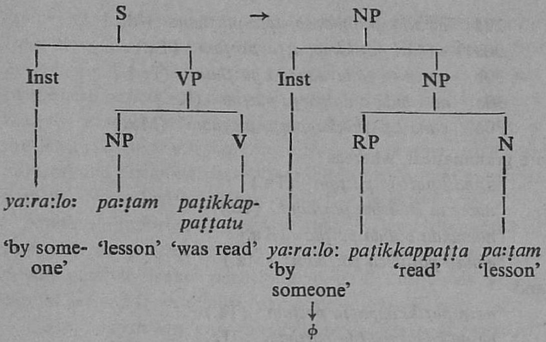
26a. *ya:ra:lo: pa:ṭam paṭikkappaṭṭatu* (Ta.) 'the lesson was read by someone'

26b. *evarice:tano: pa:ṭham cadavabaḍindi* (Te.) ,,

26c. *ya:rindalo: pa:ṭha o:dal paṭṭitu* (Ka.) ,,

26d. *a:ra:lo pa:ṭham paṭhikkappeṭṭu* (Ma.) ,,

by applying certain transformations including the one which deletes the instrumental forms.



(Figure 7)

Though phrases like *paṭitta pa:ṭam* (23a) and *paṭikkappaṭṭa pa:ṭam* (25a) do not have subjects (nominative and instrumental respectively) they can be recovered. In the case of 23a, 23b, 23c and 23d only the nominative forms like *ya:ro:* 'someone' can be recovered and in the case of 25a, 25b, 25c and 25d only the instrumental forms like *ya:ra:lo:* 'by someone' can be supplied, but not vice versa. Forms like

27a. *ya:ro: paṭitta pa:ṭam* (Ta.)
27b. *evaro: cadivina pa:ṭham* (Te.)
27c. *ya:ro: o:dida pa:ṭha* (Ka.)
27d. *a:ro: paṭhicca pa:ṭham* (Ma.)
28a. *na:ṉ paṭitta pa:ṭam* (Ta.)
28b. *ne:nu cadivina pa:ṭham* (Te.)
28c. *na:nu o:dida pa:ṭha* (Ka.)
28d. *ña:n paṭhicca pa:ṭham* (Ma.)
29a. *ya:ra:lo: paṭikkappaṭṭa pa:ṭam* (Ta.)
29b. *evari ce:tano: cadavabaḍda pa:ṭham* (Te.)
29c. *ya:rindalo: o:dalpaṭṭa pa:ṭha* (Ka.)

29d. *a:ra:lo: paṭhikkappeṭṭa pa:ṭham* (Ma.)
30a. *eṉṉa:l paṭikkappaṭṭa pa:ṭam* (Ta.)
30b. *na:ce:ta cadavabaḍḍa pa:ṭham* (Te.)
30c. *nanninda o:dalpaṭṭa pa:ṭha* (Ka.)
30d. *enna:l paṭhikkappeṭṭa pa:ṭham* (Ma.)

are grammatical, whereas

**eṉṉa:l paṭitta pa:ṭam* (Ta.)
**na:ce:ta cadivina pa:ṭham* (Te.)
**nanninda o:dida pa:ṭha* (Ka.)
**enna:l paṭhicca pa:ṭham* (Ma.)

and

**na:ṉ paṭikkappaṭṭa pa:ṭam* (Ta.)
**ne:nu cadavabaḍḍa pa:ṭham* (Te.)
**na:nu o:dalpaṭṭa pa:ṭha* (Ka.)
**ña:n paṭhikkappeṭṭa pa:ṭham* (Ma.)

are ungrammatical,[20] i.e. forms like *paṭitta, cadivina, o:dida, paṭhicca*, etc. always take just the nominative forms and not the instrumental ones as subjects.[21] *paṭitta pa:ṭam, cadivina pa:ṭham*, etc. are as much active as *paṭitta paḷḷikku:ṭam* 'the school in which (someone) read',

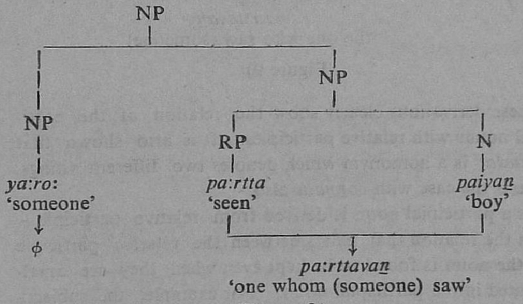
[20]*eṉṉa:l paṭitta pa:ṭam*, etc. can be grammatical when *eṉṉa:l* denotes instrumental proper, meaning 'because of me'. This should not be confused with *eṉṉa:l* the derived instrumental. Similarly in the author's spoken dialect, *na:ṉ paṭikkappaṭṭa pa:ṭam* can also be grammatical when *paṭu* denotes habituality giving the meaning 'the lesson that I usually read' for that expression. This should not be confused with passive *paṭu* in which case the above expression is ungrammatical.

[21]Prof. Burrow and Bhattacharya report that in Parji when the active expressions denote passivity the subject appears normally in the genitive form. The author of the present paper is not in a position to comment whether this can be equated with real passive or not. It needs further investigation. For details, see Burrow and Bhattacharya, 1953, p. 60.

eḻutina pe:ṉa: 'the pen with which (someone) wrote' and *aḻaitta iṭam* 'the place to which (someone) invited'. Equating *paṭitta pa:ṭam*, etc. [in which *pa:ṭam* is never considered as subject of the verb *paṭitta*; cf. *ya:ro: pa:ṭattai paṭitta:rkaḷ* '(someone) read the lesson'] with *paṭikkappaṭṭa pa:ṭam*, etc. [*pa:ṭam* is the subject of the verb *paṭikkappaṭṭa*; cf. *pa:ṭam paṭikkappaṭṭatu*] and assigning passivity to the former do not conform with the syntactical behaviour of such expressions.

Another important category that is very often cited to exemplify the statement that Dravidian active expressions denote passivity is the participial noun.[22] Participial nouns can be derived from relative participle + noun. Exx:

31a. *pa:rttavaṉ* 'one who saw'/'one whom (someone) saw'
32a. *coṉṉatu* 'that which said (something)'/'that which (someone) said'
33a. *ya:ro: pa:rtta paiyaṉ* 'the boy whom someone saw'
→ *ya:ro: pa:rttavaṉ* 'one whom someone saw'
→ *pa:rttavaṉ* (31a) 'one whom (someone) saw'



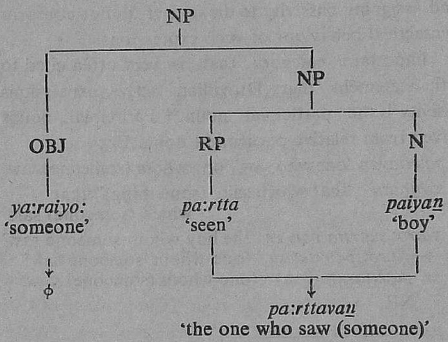
(Figure 8)

[22] Caldwell, 1961, p. 465, Varadarajan, 1958, p. 236, Ilakkuvanar, 1946, pp. 133–4, and Devaneya Pavanar, 1945, p. 117. "Like all other verbal forms in Tamil, participial nouns have no voice differentiation. Therefore, participial nouns, derived from transitive verbs, can be passive as well as active in their meaning" says Dr. Andronov, 1959 (pp. 253–4).

34a. *ya:raiyo: pa:rtta paiyan̲* 'the boy who saw someone' →

ya:raiyo: pa:rttavan̲ 'the one who saw someone' →

pa:rttavan̲ (31a) 'the one who saw (someone)'



(Figure 9)

These derivations clearly show the relation of the participial nouns with relative participles. It is also shown that *pa:rttavan̲* is a homonym which denotes two different things. Same is the case with *con̲n̲atu* also.

As a participial noun is derived from relative participle+ noun the relation that exists between the relative participle and the noun is found to be kept even when they are amalgamated into a participial noun. For example, the subject–predicate relation that exists between *pa:rtta* and *paiyan̲* in 34a (which is derived from *paiyan̲ ya:raiyo: pa:rtta:n̲*) and the object-predicate relation that is found between *pa:rtta*+

paiyaṉ in 33a (derived from *ya:ro: paiyaṉai pa:rtta:rkaḷ*) are kept even when the phrases are converted into a participial noun as *pa:rttavaṉ*. This shows that *pa:rttavaṉ* can mean 'one who saw someone' and 'one whom (someone) saw'. Similarly we can also derive participial nouns like *pa:rkkap-paṭṭavaṉ* from noun phrases like *pa:rkkappaṭṭa paiyaṉ* which are passive.[23]

As participial nouns are derived from participles plus nouns, what has been said in the case of relative participles will hold good in the case of participial nouns too. It has already been shown that expressions like *paṭitta pa:ṭam*, *cadivina pa:ṭham*, *o:dida pa:ṭha*, etc. can take only nominative forms and not instrumental as subjects and thereby they are only active and not passive. This is definitely the case with

35a. *paṭittatu* (< *paṭitta pa:ṭam*) 'one that (someone) read'

35b. *cadivinadi* (< *cadivina pa:ṭham*) ,,

35c. *o:didudu* (< *o:dida pa:ṭha*) ,,

which are derived from

36a. *ya:ro: paṭittatu* (Ta.) '(one) that someone read'

36b. *evaro: cadivinadi* (Te.) ,,

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[23]From sentences like *na:ṉ paiyaṉai pa:rtte:ṉ* 'I saw the boy' noun phrases like *na:ṉ pa:rtta paiyaṉ* 'the boy whom I saw' can be derived. *eṉṉa:l pa:rkkappaṭṭa paiyaṉ* 'the boy who was seen by me' is derived from *na:ṉ paiyaṉai PAS pa:rtte:ṉ*. Actually to get the latter, first a passive transformation which transforms the sentence *na:ṉ paiyaṉai pa:rtte:ṉ* into *eṉṉa:l paiyaṉ pa:rkkap-paṭṭa:ṉ* 'the boy was seen by me' has to take place. Notice the history of the derivations of two noun phrases as well as the changes that the subject (*na:ṉ*) undergoes are different. In the former there is no change, whereas in the latter nominative form is changed into instrumental form. Strictly speaking from one and the same sentence we cannot derive the passive. See Chomsky, 1965, pp. 128–34. One should not confuse these two and equate one with the other because of the misleading English translation.

36c. *ya:ro: o:didudu* (Ka.) '(one) that someone read'
36d. *a:ro: paṭhiccatu* (Ma.) ,,

As shown above when subjects are implied we can supply only nominative forms and not the instrumental forms which clearly shows that they are not passive. Most of us are confused because of misleading translation like *paṭittatu* 'that was read', and as Jespersen had noted already translation into another language should not be the criterion to set up a grammatical category.[24]

This is the same case with expressions like

37a. *katavu aṭaittatu* (Ta.) 'the door closed'
37c. *ba:gilu ha:kitu* (Ka.) ,,
38a. *katavu tiṟantatu* (Ta.) 'the door opened'
38c. *ba:gilu tereyitu* (Ka.) ,,
39a. *ka:ykaṟi viṟkiṟatu* (Ta.) 'vegetables sell'
39b. *ku:ralu ammutunnay* (Te) ,,

Though they are very often translated into English 'the door was closed', 'the door was opened' and 'vegetables sell', respectively, they are considered by many as passive.[25]

As already said in the case of forms like *aṭipaṭṭa:ṉ*, these expressions are not transformations of

40a. *katavai aṭaitta:ṉ* (Ta.) '(someone) closed the door'
40c. *ba:gilu ha:kidanu* (Ka.) ,,
41a. *katavai tiṟanta:ṉ* (Ta.) '(someone) opened the door'
41c. *ba:gilu teredanu* (Ka.) ,,

[24]This danger has already been felt by Jespersen, 1955, who says "the circumstance that Lat. *vapulo* in other language is translated by a passive does not alter its grammatical character as an active; and Gr. *apothne:skei* is just as active when we render it 'is killed' (thus when it is followed by *hupo* 'by') as when we simply say 'dies'. There is thus nothing in the ideas themselves to stamp verbs as active or passive". (p. 165)

[25]Jothimuththu, 1965, p. 69 and Varadarajan, 1958, p. 235

42a. *ka:ykaṟi viṟkiṟa:ṉ* (Ta.) '(someone) sells the vegetables'

42b. *ku:ralu ammutunna:ḍu* (Te.) „

Note that *aṭai, ha:ku, tiṟa, tere, vil, ammu*, etc., which are generally considered as transitive verbs occur with subjects like *katavu, ka:ykaṟi*, etc. In sentences like

43a. *avaṉ tiṟanta:ṉ* (Ta.) 'he opened'

44a. *avaṉ aṭaitta:ṉ* (Ta.) 'he closed'

45a. *avaṉ viṟkiṟa:ṉ* (Ta.) 'he sells'

these verbs can have objects whereas this is impossible in the case of *katavu aṭaittatu*, etc. The subjects themselves receive the result of the action of *closing*, *opening* and *selling* and that is why (and probably because of the English translations also) we are led to conclude that they are passive. This kind of situation can be found in English too, in sentences like

The door closes well

The door opens well

The book sells well

and expressions like these are not uncommon. Yet English grammarians and linguists never consider them passive.[26] Verbs like *close*, *open*, and *sell* are considered as both transitive (*He closed the door*) and intransitive (*The door closes*). We are very happy to note that certain verbs like *veḷu* 'wash' are considered both as transitive and intransitive by certain traditional grammanians in Tamil.[27]

46a. *tuṇi veḷutta:ṉ* 'he washed the cloth'

is transitive, whereas

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[26]Jespersen, 1955, names them as 'notional passive'. Note that this is different from syntactic passive (in his terminology) and he clearly distinguishes one from the other. (p. 165)

[27]Arumuga Navalar, 1952, pp. 40–1 and Devaneya Pavanar, 1945, pp. 116–7

47a. *tuṇi veḷuttatu* 'the cloth became white'
is intransitive. I don't find any valid reason (though *veḷu* can take human nouns as subjects in both the cases) why verbs like *tiṟa, aṭai*, etc. cannot be considered as transitive in

avaṉ katavai aṭaitta:ṉ 'he closed the door'
avaṉ katavai tiṟanta:ṉ 'he opened the door'
avaṉ ka:ykaṟi viṟkiṟa:ṉ 'he sells vegetables'

and as intransitives in

katavu aṭittatu 'the door closed'
katavu tiṟantatu 'the door opened'
ka:ykaṟi viṟkiṟatu 'vegetables sell', etc.

instead of considering the latter as passive. Moreover like relative participles and participial nouns they are also incapable of taking instrumental forms like *eṉṉa:l, na:ce:ta, nanninda* 'by me', etc. as subjects, which leads us to conclude that they are only active (intransitive) and not passive. Note that objects in *katavai aṭaitta:ṉ*, etc. are used as subjects in *katavu aṭaittatu*, etc. It is very gratifying to note that this feature had not gone unnoticed by Tolkappiyar, the earliest extant grammarian in Tamil. In the cu:tram

ceyappaṭu poruḷaic ceytatu po:lat
toḻiṟpaṭak kiḷattalum vaḻakkiyal marape:[28]

'What is (generally) used as object is also used as subject (the actor) in colloquial usage', Tolkappiyam speaks of this feature.[29]

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[28]Subrahmanya Sastri, 1940, S246

[29]The commentators of Tolkappiyam and many native scholars are of the opinion that the above cu:tram speaks of using active expressions in the place of passive. According to them passive expressions like *tiṇṇai meḻukappaṭṭatu* 'the pial was cleaned' are the same as expressions like *tiṇṇai meḻukiṟṟu*. But it is gratifying to note that Subrahmanya Sastri, 1945, has rightly written that "There is usage where the object is also used as subject" (p. 194).

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Inflectional Increments in Dravidian

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Introduction

In all the Dravidian languages, there are certain groups of nouns in which the nominative form is different from the oblique form to which alone case suffixes are added. As the oblique form of the noun is the inflectional base, the suffixes used for forming the inflectional base are called 'inflectional increments' by Caldwell.[1] K. V. Subbayya[2] and L. V. Ramaswami Aiyar[3] have named them 'augments'. They are referred as 'empty morphs' by some modern descriptive linguists[4] and as *ca:riyai* by the native Tamil grammarians.[5] The term 'augment' is used throughout the body of this paper because of its shortness.

A descriptive and comparative study of the augments in

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[1]Caldwell, 1961, pp. 259 ff.

[2]Subbayya, 1911, §§ 10, 13–5

[3]Ramaswami Aiyar, Vol. I "Dravidic Sandhi – Augments", and Vol. II, "Dravidian Nominal Inflections"

[4]Shanmugam Pillai, 1964, pp. 105–7 and Radhakrishnan, 1964, pp. 115-9

[5]Tolkappiyam Ss 112, 118–9 and *Nannu:l* S126

Dravidian languages is attempted in this paper.[6] But the author does not claim that the study is complete as the full description for languages like Toda, Koḍagu, etc. is not available.

I. Descriptive Study

1. Tamil

The material for Tamil is mainly collected from Old Tamil literature and Tolkappiyam, the earliest extant grammar. All the available indices of the OTa. literature and Tolkappiyam are made use of.[7]

The statements in Tolkappiyam are referred to first and after comparing them with the literary attestations, some kind of generalized statement is made. As Tolkappiyam is the

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[6]Special sources for the material collected:- For literary Malayalam, Ramaswami Aiyar, 1936, for inscriptional Malayalam, Sekhar, 1953 and for Koḍagu, Ramaswami Aiyar, Vol. I, "Affinities of Koḍagu language"

I am thankful to the following persons for the information they have supplied: K. Kushalappa Gowda (Kannada), P. S. Subrahmanyam (Telugu and Gondi), G. Subbiah (Kota, from *Kota Texts* of Emeneau), M. Garman (Koḍagu, from his field-notes)

For the change in the order of enumeration of Dravidian languages, see Emeneau, 1967 and Subrahmanyam, 1969.

[7]The abbreviations for the indices of OTa. literature and Tolkappiyam:- Tol. – Tolkappiyam, Aiṅ. – Aiṅkur̤unu r̤u, Nar̤. – Nar̤r̤iṇai, Kur̤. – Kur̤untokai, Pat. – Patir̤r̤uppattu, Aka. – Akana:ṉu:r̤u, Pur̤. – Pur̤ana.ṉu:r̤u, Kal. – Kalittokai, Par. – Paripa:ṭal, Mur. – Muruka:r̤r̤uppaṭai, Per. – Perumpa:ṇa:r̤r̤uppaṭai, Cir̤. – Cir̤upa:ṇa:r̤r̤uppaṭai, Mat. – Maturaikka:ñci, Por. – Porunara:r̤r̤uppaṭai, Mal. – Malaipaṭukaṭa:m, Kur̤i. – Kur̤iñcippa:ṭṭu, Paṭṭ. – Paṭṭiṉappa:lai, Neṭ. – Neṭunalva:ṭai Mul. – Mullaippa:ṭṭu, Tir. – Tirukkur̤aḷ, Cil. – Cilappatika:ram, Maṇ. – Maṇime:kalai

earliest extant work and all the others are posterior to it,[8] certain historical changes are noticed in the literary works, and they are also pointed out.

1 1. *-an̲-*

an̲ occurs after the numeral *e:ḻ* 'seven' (Tol. 194) and after all other numerals ending in *-u* (Tol. 198). There are three instances in literature contrary to the above statement; two without augment [*ainta:n̲* 'by five' (Pur̲. 400.2) and *iraṇṭukku* 'for two' (Maṇ. 29.220)] and one with the augment *-in̲-* [*a:r̲in̲il* 'in six' (Mur. 180)]. This contradiction is due to the innovation in the language.

It also occurs after neuter singular demonstrative [*atu* 'that' : *atan̲ai* 'acc.' (Tol. 594)] and interrogative pronouns (Tol. 200). All the works except Manimekalai [*atil* 'in that' (11.48); *itil* 'in this' (8.40)] prove the above statement.

Tolkappiyam has not referred to the occurrence of *-an̲-* after neuter singular participial nouns like *uraippatu* 'that which is said'.[9] However, it is found to be used before instrumental case [*en̲patu* 'that which is said' : *en̲patan̲a:l* (Tol. 1093.23); *mikkatu* 'that which is increased' : *mikkatan̲a:l* (Maṇ. 27.141)] and dative [*vantatu* 'that which came' : *vanta-tar̲ku* (Aiṅ. 32); *ikaḻntatu* 'being insulted' : *ikaḻntatar̲ku* (Cil. 30.99)] uniformly and optionally before accusative (*oḻintatu* 'that which remained' : *oḻintatai* (Tol. 993); *moḻiya:-tatu* 'that which is not said' : *moḻiya:tatan̲ai* (Tol. 1610.6)].

1.2. *-ar̲r̲-*

Even though Tolkappiyam refers to this augment as

[8]Meenakshisundaran, 1965, p. 107

[9]This and some other similar observations are already made by the commentators of Tolkappiyam as early as the 10th century. See for their contribution, Shanmugam, 1967, pp. 208–18.

-vaṟṟu-, it is considered as *-aṟṟ(u)-* only.[10] It occurs after collective nouns like *pala* 'many things', *cila* 'few things', etc. (Tol. 174), interrogative pronouns *ya:* 'which' (Tol. 175), *ya:vai* 'which' (Tol. 178), demonstrative plural pronouns *av* 'those', *iv* 'these', *uv* 'these (intermediate)' (Tol. 183), *avai*, *ivai* and *uvai* (Tol. 177)[11] and *ella:m* 'all things' (Tol. 189). The declensional forms of *pala*, *cila* and *ella:m* (probably *palavaṟṟai palavaṟṟiṟku*, *ella:vaṟṟai*, *ella:vaṟṟiṟku*, etc.) are not attested in OTa. literature.

The neuter plural participial nouns like *payila:tavai* 'those which do not occur in usage' can also take this augment [*payila:tavaṟṟai* 'acc.' (Tol. 782); *nilla:tavaṟṟai* 'those which are not permanent (acc.)' (Tir. 331), etc.]

1.3. *-iṉ-*

It occurs after words ending in *-a*, *-a:*, *-u*, *-u:*, *-e:* and *-au* (Tol. 173); *-ñ* and *-ṉ* (Tol. 182) and after a few words ending in *-m* (Tol. 186). It also occurs after *tev* 'enmity' (Tol. 185), *aḻaṉ* 'corpse' and *puḻaṉ* '?' (Tol. 193) and words ending in shorter *-u* except those ending in *ṭu/ṟu* preceded by a long syllable (Tol. 195). Tolkappiyam specifically mentions that *-iṉ-* never comes before the case suffix *-iṉ* (S. 131).

As far as the literary usages are concerned, the following generalisation can be made: *-iṉ-* occurs after words ending in *-a*, *-a:*, *-u*, *-u:*, and *-e:* before dative and instrumental

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[10]Ramaswami Aiyar, Vol. I "Dravidic Sandhi", and Shanmugam Pillai, 1964

[11]The demonstrative neuter plural pronouns have two sets of oblique forms, *avaṟṟ-*, *avaiyaṟṟ-*; *ivaṟṟ-*, *ivaiyaṟṟ-*, etc., as they have two sets of nominative forms *av*, *avai*; *iv*, *ivai*, etc. according to Tolkappiyam Ss. 122, 133, 177, 183. No occurrence of *avai-yaṟṟ-*, *ivaiyaṟṟ-*, etc. has so far been noted in OTa. Interrogative neuter plural forms *ya:* and *ya:vaṟṟ* have the same oblique form *ya:vaṟṟ-* (Ss. 175, 178)

case suffixes with high frequency and before sociative suffix *o:ṭu* with low frequency.[12] There are two instances with accusative case, one with augment *-iṉ* [*ava:viṉai* 'desire' (Tir. 367)] and another without it [*a:ṉma:vai* 'soul' (Maṇ. 29.300)].

It also occurs after closed short mono-syllabic words.[13]

It also occurs after the augment *-aṟṟu-* and before dative obligatorily [*avaṟṟiṟku* 'to them' (Par. 2.12)] and optionally after *-attu-* and before dative[14] and other case suffixes.

-iṉ- occurs after the augment *-t-* and before dative in two instances [*na:ṭṭiṟku* 'to the country' (Tir. 737)]; *vi:ṭṭiṟku*

[12]After all the long vowels, *-iṉ-* occurs before dative. But after *u*, there are approximately 22 instances where *iṉ* occurs before dative and one instance without *iṉ*. Ex: *karumpukku* 'to sugarcane' (Kal. 64.19). There is one instance without *iṉ* after long vowel and before instrumental (*na:va:l* 'with the tongue' [Maṇ. 13. 13; 27.16]). There is no instance of *iṉ* after long vowels and before sociative. After *u*, there are only 6 instances (*kiḻaṅkiṉoṭu* 'with root' [Aiṅ. 379], *ña:ṉṟiṉoṭu* 'with time' [Puṟ. 376.14]) and 86 instances without *iṉ* (*kiḻaṅkoṭu* 'with the root' [Puṟ. 176.4]; *kuruntoṭu* 'with the tender leaves' [Kuṟ. 372.1], etc.)

[13]Four instances with *iṉ* before dative: *col – colliṟku* 'to the word' (Tol. 780); *nel – nelliṟku* 'to the paddy' (Naṟ. 22.10;Kal. 71.25); *eṇ – eṇṇiṟku* 'to the number' (Tol. 439); *kaḷ – kaḷḷiṟku* 'to the toddy' (Puṟ. 300.5.). Three instances without any augment: *col – coṟku* 'to the word' (Tol. 707); *kaṇ – kaṭku* 'to the eye' (Puṟ. 167.4; Mal. 477; Aka. 110.25); *kal – kaṟku* 'to the stone' (Cil. 25.169). For the two instances with augment *u*, see §1.7. Before accusative, *iṉ* occurs twice: *kaṇṇiṉai* 'eye' (Tir. 1100); *puḷ – puḷḷiṉai* 'bird' (Par. 3.17). One instance without augment: *collai* 'word' (Kuṟ. 357.4; Tir. 644; Cil. 9–p–2). Before instrumental, *iṉ* occurs twice: *peṇ – peṇṇiṉa:l* 'by the girl' (Tir. 1280); *colliṉa:l* 'with the word' (Tir. 826); once without augment: *kaṇṇa:l* 'with the eye' (Kal. 39.44)

[14]There are approximately 9 instances of *iṉ* after *attu* and before dative. *pulam–pulattiṟku* 'to the field' (Kal. 78.19). For other examples, see Tir. 76, 112, 178, 261, 1299, 1330 and Maṇ. 28.96 and 29.134. In contrast to this, there are 4 instances without *iṉ*. *tavam–tavattukku* 'for penance' (Puṟ. 358.3); *uḷḷam–uḷḷattukku* 'to the mind' (Kuṟ. 58); *intiyam–intiyattukku* 'to the sense organ' (Maṇ. 29.298); *ni:ttam–ni:ttattukku* 'to the flood' (Maṇ. 29.258)

'to the house' (Maṇ. 30.31)] But there is one instance without *-iṉ-* [*na:ṭṭukku* 'to the country' (Maṇ. 26.42)].

There are quite a few instances[15] of this augment before case suffix *-iṉ* and it is found once surprisingly enough in Tolkappiyam itself [*kaḷaviṉiṉ* 'from pre-marital love' (S. 1445)].

1.4. *-att-*

According to Tolkappiyam, *-attu-* occurs after tree names ending in either *-a* or *-a:*, before locative *kaṇ* (Tol. 181), after *-m* (Tol. 185) and after *aḻaṉ* and *puḻaṉ* (Tol. 193). *attu* can be considered as *-tt-* after *-m* ending and the loss of *m* can be explained by the sandhi rule

$$m \rightarrow \phi \ / \ -tt$$

-tt- occurs after *-m* ending words obligatorily before case suffixes other than sociative and dative. There are approximately 170 instances without *-tt-* before sociative and 32 with *-tt-*.[16] As for the dative, there are 7 instances

[15]Exx: *karpiṉiṉ* 'from chastity' (Aka. 86.13); *elliṉiṉ* 'at night' (Aka. 100 14); *kaḷattiṉiṉ* 'in the field' (Kuṟ. 318.3); *iraviṉiṉ* 'at night' (Kal. 46.10); *ampiṉiṉ* 'than arrow' (Tir. 772); *poḻutiṉiṉ* 'in the day' (Maṇ. 28.242), etc.

[16]

	No. of instances with *-tt-*	No. of instances without *-tt-*
Tol.	3 (710, 760, 1152)	16
Pat.	1 (53.17)	16
Puṟ.	3 (18.21; 153.9; 309.8)	31
Kal.	9	12
Mat.	1 (91)	14
Par.	2	9
Tir.	4	—
Cil.	4	24
Maṇ.	5	19
Naṟ.	—	6
Kuṟ.	—	10
Aiṅ.	—	8
Aka.	—	8

without *-tt-*[17] and 13 with *-tt-* (See fn. 14).

What is generally considered as the doubling of the final consonants *ṭ* and *ṟ*, can be interpreted as the addition of the augment *-t-* with the operation of the sandhi rule

$$t \rightarrow \begin{bmatrix} ṭ \\ ṟ \end{bmatrix} / \text{---} \begin{bmatrix} ṭ \\ ṟ \end{bmatrix}$$

-t- occurs after words ending in *-ṭu* which is preceded either by a long mono-syllable or more than one syllable. But in the case of *-ṟu* ending not preceded by a single short syllable, *-t-* occurs optionally before *oṭu,* the sociative suffix and it occurs obligatorily before all other case suffixes. Exx: *e:ṟṟoṭu* (Kuṟ. 268, 344) ~ *e:ṟoṭu* (Puṟ. 160.3) 'with the bull'; *kaḷiṟṟoṭu* (Kuṟ. 292, Pat. 71.13, Puṟ. 274.3, Tir. 774) ~*kaḷiṟoṭu* (Kuṟ. 393, Puṟ. 307, Pat. 90.7) 'with the male elephant'.

1.5. *-u-*

This is not used in Old Tamil as frequently as in Middle Tamil. It is found between a word ending in *l, ḷ, n* or *ṉ* and the dative case suffix.[18]

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[17] *kuṟṟiyalukaram* 'shorter *u*' – *kuṟṟiyalukarakku* (Tol. 177)
a:ciriyam 'a metre' – *a:ciriyakku* (Tol. 1309)
ve:ḻam 'elephant' – *ve:ḻakku* (Tol. 1533)
vaiyam 'world' – *vaiyakku* (Tir. 751)
nilam 'land' – *nilakku* (Tir. 572)
kulam 'clan' – *kulakku* (Cil. 24.1-10; 26.107)
maṉam 'mind' – *maṉakku* (Maṇ. 21.30; 22.18; 24.158)

[18] Tolkappiyam specifies that *-tam-* occurs as an augment after *ella:rum* 'all persons' (S 191). There are at least two instances in Sangam literature with dative case and both of them occur without the augment: *ella:rkkum* 'to all persons' (Puṟ. 58.10; Tir. 582). In Sangam literature, *tam* is also used after epicene plural nouns. Exx: *ka:talar tamakku* 'to lovers' (Kuṟ. 48.7); *nampiyar tammoṭu* 'with young men' (Cil 14.103). The other augments like *nam,*

Exx:

kaṉ 'eye'	*kaṇṇukku* (Puṟ. 167.7)
na:ṇ 'modesty'	*na:ṇukku* (Tir. 1015)
avaṉ 'he'	*avaṉukku* (Maṇ. 29.384)
maṉṉaṉ 'king'	*maṉṉaṉukku* (Maṇ. 25.193)
kaḷ 'toddy'	*kaḷḷukku* (Tir. 1281)
ma:kkaḷ 'people'	*ma:kkaḷukku* (Puṟ. 328.4)
After *-iṉ*	
mati 'moon'	*matiyiṉukku* (Kuṟ. 395.4)
kokku 'crane'	*kokkiṉukku* (Naṟ. 280.1)
anittam 'instability'	*anittattiṉukku* (Maṇ. 29.134)

2. Malayalam

2.1. *-tt-*

tt occurs after *-m* ending neuter nouns and before all case suffixes. But there are a few instances in Old Malayalam without this augment before the case suffix *o:ṭu*. Exx: *tiṟa-mo:ṭu* 'with vigour', *ña:lamo:ṭu* 'with the world'.

-ṭ- occurs after *-ṭu*/*-ṟu* endings as in Tamil (*ka:ṭṭa:l* 'with forest' <*ka:ṭu*; *ku:ṟṟiṉ* 'with share' <*ku:ṟu*).

2.2. *-an-*

This augment is not found in literary Malayalam but occurs in inscriptions with reference to neuter singular demonstrative pronouns before all case suffixes except locative.

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which occurs after *ella:m* 'all of us' (Tol. 190) and *num*, which occurs after *elli:rum* 'all of you' (Tol. 191) are not recorded in Sangam literature. The augment *taṉ* is found after singular nouns, human or non-human. Exx: *ña:lam taṉṉil* 'in the world' (Mur. 162); *cañcayaṉ taṉṉoṭu* 'with Sanjayan' (Cil. 26.143); *kaṇṇaki taṉakku* 'to Kaṇṇaki' (Cil. 2.90); *kaṅkai taṉṉai* 'Ganges (acc.)' (Cil. 7-2-2); *uṉtaṉakku* 'to you' (Maṇ. 16.113).

It is in free variation with *–in–* from early period (i.e. 10th century).

2 3. *-in-*

It occurs obligatorily before dative and genitive and optionally before other case suffixes and after the nouns ending in *-u*, *–u*: and *-a*: and this is the same case with the inscriptional and literary languages.

Closed short mono-syllabic neuter nouns ending in *–l*, *–ḷ*, *-n*, *–ṉ* and *r* "invariably embody the augments before dative and genitive". No form of this type is found in the inscriptions.

Closed long monosyllabic neuter nouns ending in *–l*, *–ḷ* and *–r* take this augment optionally before dative and genitive in OM, but obligatorily in New Malayalam. The same is the case with regard to the addition of *–in–* after disyllabic words.

This augment occurs obligatorily after numerals in inscriptions and literature. Its occurrence after demonstrative neuter singular pronouns is found in literary and inscriptional Malayalam.

in also occurs after the augments *–tt–* and *–ṟṟ–* and before dative. Exx: *cantanattinukku* 'to sandal', *avaṟṟiṟku* 'to them'.

2.4. *–aṟṟ–*

aṟṟ occurs after neuter plural demonstrative stems *av* 'those' and *iv* 'these' in the 12th century inscriptions only. It is found optionally in literature after *ella:m* 'all things'.

It is found as *–iṟṟ–* after *avai* 'those' and *ivai* 'these' in the 10th century inscriptions and in literature.

Both *aṟṟ* and *ṟṟ* are found after *pala* 'many things' and *cila* 'few things' in literature only but not in NM. *ṟṟ* also occurs after *ella:* 'all things' in both OM and NM.

2.5. *-u-*

u occurs after polysyllabic words from 10th century inscriptions. It also occurs after the masculine demonstrative pronoun in the inscriptional records.

3. Kota

3.1. *-t-*

It is found after words ending in *-m* when not preceded by a vowel or *y*[19] and before all case suffixes except *o:ṛ* (corresponding to Tamil *o:ṭu*). Exx: *janm* 'people', *jantn* 'acc.', *jantk* 'dat.' and *janmo:ṛ* 'soc.'.

It also occurs after *-r/-ṛ* preceded by long vowel. Exx: *na:ṛ-t-k->* *na:ṭk-* 'to the country'; *ki:r-t-k->* *ki:ṯk-* 'to the loose bosom of women's clothes.'

3.2. *-n-*

It occurs after neuter singular demonstrative pronouns before all cases except accusative.

4. Toda

4.1. *-t-*

It occurs after *-n/-m* ending. The distribution is not known and so also the occurrence of other augments. Exx: *neln* 'ground' ; *nelt-* (obl.); *koḷṇ* 'threshing floor'; *koḷt-* (obl.).

5. Koḍagu

5.1. *-t-*

It occurs after neuter nouns ending in *-a* which is derived from **-am*. This is found before all case suffixes except the dative.

[19]Emeneau, 1944-46, Vol. I, p. 23

5.2. *-a:n-*

a:n is found after numerals and before all case suffixes.

5.3. *-an-*

According to L. V. Ramaswami Aiyar, it occurs after neuter singular demonstrative pronouns.

6. Kannada

6.1. *-d-*

It occurs after *-m* ending neuter nouns and before instrumental, genitive and locative case suffixes.

6.2. *-aṟ-/-ar-*

It is added to the neuter demonstrative pronouns whether singular or plural, and to numerals before all cases except accusative. It also occurs after *kelavu* 'few things' and *ella:* 'all things' and before genitive, locative and dative case suffixes.

6.3. *-in-/-i-*

in occurs before a vowel and *i* before a consonant. It occurs after nouns ending in *-u*, *-u:*, *-o:* and *-au* and before all cases except accusative. However it is obligatory before dative only. It also occurs after epicene plural nouns, masculine and feminine singular.

7. Tulu

7.1. *-t-/-d-*

It is used before genitive case and after disyllabic neuter nouns ending in *-a*, *-i*, *-u* and *-e*. The allomorphic condition of *-t-* and *-d-* cannot be made clear with the restricted material we have.

7.2. *-a-*

It occurs after demonstrative masculine pronoun and before all case suffixes. It also occurs after personal pronouns (I person singular and plural, and II person singular) and before all case suffixes except dative.

7.3. *-e-*

It occurs after the plural suffixes, *-ḷu* or *-ru*, and the proximate demonstrative neuter singular pronoun.

8. Telugu

8.1. *-i-*

It occurs after demonstrative pronouns, masculine nouns ending in *-ḍu* and some neuter nouns (morphologically conditioned) ending in *-ru*, *-lu* and *-nu*.

Exx:	*tammuḍu*	'brother'	:	*tammuni-*	(obl.)
	go:ru	'finger-nail'	:	*go:ri-*	,,
	ka:lu	'leg'	:	*ka:li-*	,,
	ce:nu	'field'	:	*ce:ni-*	,,

8.2. *-na-/-n-*

na (before dative) and *n* (before locative) occur after neuter nouns ending in *-mu*.

Exx:	*gurra(m)mu*	'horse'
	gurra(m)munaku	'to the horse'
	gurra(m)munandu	'in the horse'

8.3. *-ṭi-*

It occurs after the nouns ending in *-ḍu*, *-ru* (mostly developed from **-ṟu* and others due to analogy) preceded by long syllable or more than one syllable.

Exx:	*e:ru* 'river'	:	*e:ṭi-* (obl.)
	gu:ḍu 'nest'	:	*gu:ṭi-* (obl.)
	nuduru 'forehead'	:	*nuduṭi-* (obl.)

It also occurs after *-llu* (developed from **-ḷḷu* and some others due to analogy) and *-nnu* (developed from **-ṇṇu* and some others due to analogy)

Exx:	*mullu* 'thorn' (**muḷḷu*)	:	*muṇṭi-*	(obl.)
	illu 'house'	:	*iṇṭi-*	,,
	kannu 'eye' (**kaṇṇu*)	:	*kaṇṭi-*	,,
	minnu 'sky'	:	*miṇṭi-*	,,

It also occurs after words denoting location.

Exx:	*mi:da* 'above'	:	*mi:daṭi-*	(obl.)
	mundu 'front'	:	*mundaṭi-*	,,

8.4. *-ti-*

It occurs after a few words of *-yi* ending and some words ending in *-rru*.

Exx:	*nu:yi* 'well'	:	*nu:ti-*	(obl.)
	ce:yi 'hand'	:	*ce:ti-*	,,
	ne:yi 'ghee'	:	*ne:ti-*	,,
	arru 'neck'	:	*ariti-*	,,
	korru 'spite'	:	*koriti-*	,,

8.5. *-i(ṇ)ṭi-*

It occurs after numerals.

Exx:	*na:lugu* 'four'	:	*na:lugi(ṇ)ṭi-*	(obl.)
	ve:yi 'thousand'	:	*ve:yi(ṇ)ṭi-*	,,

8.6. *-a-*

It occurs after the plural suffix *-lu*.

Exx:	*tammulu* 'younger brothers'	:	*tammula-*	(obl.)
	gurramulu 'horses'	:	*gurramula-*	,,

9. Gondi

9.1. *-t-*

It occurs mostly after neuter nouns.

Exx:	*ro:n*	'house'	:	*ro:t-*	(obl.)
	chhuva:	'child'	:	*chhuva:t-*	,,
	mara	'tree'	:	*marat-*	,,
	na:r	'village'	:	*na:ṭ-*	,,
	e:r	'water'	:	*e:ṭ-*	,,
	ḍo:ngur	'jungle'	:	*ḍo:nguṭ-*	,,

9.2. *-d-*

It occurs in the following nouns.

Exx:	*kai*	'hand'	:	*kaid-*	(obl.)
	ka:l	'leg'	:	*ka:d-*	,,
	key	'ear'	:	*ked-*	,,
	sari	'road'	:	*sarid-*	,,
	ne:l	'field'	:	*ne:d-*	,,
	kar	'eye'	:	*kard-*	,,

9.3. *-n-*

It occurs after some human nouns.

Exx:	*marri:*	'son'	:	*marri:n-*	(obl.)
	kalle:	'thief'	:	*kalle:n-*	,,
	pe:ṛgi:	'girl'	:	*pe:ṛgi:n-*	,,
	ma:yju:	'wife'	:	*ma:yju:n-*	,,

It also occurs after plural *-k* and before ablative, genitive and locative.

10. Konḍa

10.1. *-ti-/-di-*

ti occurs after a consonant and *di* after a vowel before all case suffixes except *-an*, where *-t/-d* is added.

Exx: *ayli* 'girl' : *aylidi–* (obl.)
nores 'tiger' : *noresti–* ,,
kuṛam 'axe' : *kuṛamtan* 'with the axe'
mara 'tree' : *maratan* 'from the tree'
< **maramtan*

10.2. *–a–*

a occurs after the plural suffix.

Exx: *aylik* 'girls' : *aylika–* (obl.)
noresku 'tigers' : *noreska–* ,,

11. Kui

11.1. *–n–/–ni–*

n (before consonant) and *ni* (before vowel) occur after feminine singular nouns and also after the plural suffix *-ska*. *ni* also occurs after the plural suffix *–ñga* (which begins with a consonant) and before all cases.

11.2. *–i–*

It occurs after the masculine plural suffix *–ru* and (masculine) singular suffix *–nju* which alternates with *n* in the oblique form.

11.3. *–tin–*

It occurs after 'simple neuter nouns' and after verbal derivatives and before dative and accusative. In neuter appellative and participial nouns, it is used before dative only.

11.4. *–aṛin–/–aṛini–*

aṛin (before consonant) and *aṛini* (elsewhere) occur after singular demonstrative and definite interrogative feminine pronouns.

11.5. *-aṛi-*

It occurs after neuter demonstrative pronouns in both numbers.

12. Kuvi

12.1. *-n-/-na-*

na occurs after feminine ending in a vowel and before dative and *n* before other cases.

12.2. *-ṇ/-ṇa-*

ṇa occurs after *-y* ending feminine singular nouns and before dative and *ṇ* before other cases. *ṇ* also occurs after the plural suffixes *-ṅa* and *-ska* and before accusative and in the neuter plural nouns before locative.

12.3. *-t-/-ta-*

ta is used before dative and after all non-feminine nouns except the characterised singular masculine nouns. *t* occurs after neuter singular nouns and before non-dative cases. It also occurs after uncharacterised masculine nouns and before genitive.

12.4. *-ʔ-*

ʔ (glottal stop) occurs before accusative and after all masculine nouns except uncharacterised masculine plural.

13. Kolami

13.1. *-t-*

According to Emeneau, there are four forms having this augment.

Exx:	*nal*	'day'	: *naṭ-*	(obl.)
	siḍ	,,	: *siṭ-*	,,
	ul	,,	: *uṭ-*	,,
	ve:gaḍ	'field'	: *ve:gaṭ-*	,,

These are all explained morphophonemically as having the *-t-* form.[20]

14. Naiki

14.1. *-n-*

It occurs sometimes between the noun and the accusative case suffix.

Exx:	*tole*	'brother'	:	*tolelnun*	'acc.'
	ba:y	'woman'	:	*ba:ynun-*	,,

14.2. *-t-/-ṭ-*

t has been recognised as an augment in the locative and in the genitive by Bhattacharya[21] and it varies with *-ṭ-* in some words.

15. Parji

15.1. *-t-*

Burrow and Bhattacharya think that *-t-* is the augment which occurs before genitive and locative.[22]

16. Gadaba (Ollari)

16.1. *-ṭ-*

It occurs in "a few words".

Exx:	*toru* 'rope'	:	*toruṭna:l* 'with the rope'
	karme 'stick'	:	*karmeṭna:l* 'with the stick'

16.2. *-t-*

t as an augment is preserved only in one word and that too in the genitive form.

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[20]Emeneau, 1955, p. 61
[21]Bhattacharya, 1961, p. 90
[22]Burrow and Bhattacharya, 1953, p. 28

polub 'village' : *polubtin* 'of the village'
Cf. *ko:nde* 'cow' : *ko:ndeṅ* 'of the cow'

Bhattacharya doubts that the locative suffixes *tun* and *tin* may consist of an augment *t* plus the real locative suffix *un* and *in* respectively.[23]

17. Kurukh

17.1. *-i-*

It occurs after neuter singular demonstrative pronoun and before all cases except accusative.

17.2. *-a:-*

It occurs after personal pronouns and before dative.

17.3. *-g-/-k-*

g is found after singular personal pronouns and reflexive, and before all case suffixes except locative.[24] *k* occurs before all cases and after interrogative pronoun.

18. Malto

18.1. *-i-*

i occurs after neuter nouns ending in *-n* and neuter interrogative pronoun, and before dative. It also occurs before all cases except locative and accusative, and after demonstrative pronouns.

18.2. *-g-/-k-*

g occurs after singular personal pronouns and reflexive and *k* after interrogative human pronoun.

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[23]Bhattacharya, 1957, pp. 21, 23

[24]Shankara Bhat, 1965, p. 232 and *Kuṛũx language*, 1966. In Grierson and Konow, 1906 and in Hahn, 1900, *-g-* is found even before locative.

19. Brahui

19.1. *-a-*

It occurs before genitive and conjunctive after monosyllabic nouns.

Exx: *ba*: 'mouth'	:	*ba:ana*	'of the mouth'
		ba:ato	'with the mouth'
ma:r 'son'	:	*ma:rana*	'of the son'
		ma:rato	'with the son'

19.2. *-e-*

e occurs after all personal pronouns except second person plural and before all case suffixes except conjunctive. It also occurs after plural suffix and before all cases except genitive, accusative and dative.

II Historical Interpretation

20. Kolami-Parji

The dative case suffix in Kol., Nk., Pa. and Ga. (Oll.) is of (V)C pattern. C occurs after a vowel and VC elsewhere.

Kol. *un/n*
Nk. *un/n*
Pa. *uṅ/ṅ* (in one dialect)
ug/g (in another dialect)
Ga. *un/n*

Burrow and Bhattacharya have already explained that all the forms can be accounted for by taking **uṅg/ṅg* as the original not only in Parji but also in Kolami-Naiki.[25]

**ung* may be the source for both the forms which have *ṅ* due to regressive assimilation. The vowel is lost before

[25] Burrow and Bhattacharya, 1953, p. 22

another vowel. These two changes should have taken place in Pre-Kol.-Pa. period. Since most of the Dravidian languages have *k* as the dative case marker, *un-* can be considered as an augment rather than as part of the case suffix on the comparative basis.

The instrumental suffix is *-aḍ* after a consonant and *-naḍ* after a vowel in Kolami, and *-oḍ* and *-noḍ* in the same condition in Parji. Moreover, Parji has *-inoḍ* also after a consonant in a few instances. Exx:

key	'hand'	:	*keyinoḍ* (instr.)
nu:l	'thread'	:	*nu:linoḍ* ,,

Here also, *(i)n* can be considered as the augment and *oḍ* alone as the case suffix.

The instrumental suffix of Gadaba (Oll.) is *na:l* which corresponds to Tamil *a:l*. Then, comparatively *n* can be taken as an augment and not as part of the case suffix.

21. Brahui

-t- found in Brahui plural stems can be considered as part of the plural stem and in that case, plural ending *-k* has the alternant form *t* before non-pausal position.

e occurring after *t* in the plural may be an augment. Even though *e* is found before ablative, instrumental, conjunctive and locative case suffixes, it can be assumed to have existed before all case suffixes and to have undergone the following innovations in Pre-Brahui period.

1) $V_1 \rightarrow V{:}_1 / \text{—} VCV$

2) $V_2 \rightarrow \phi / \text{—} \left\{ \begin{matrix} CV \\ V\neq \end{matrix} \right\}$

22 Tulu

The augment *e* occurring in Tulu in addition to *a* is only due to the Pre-Tulu innovation of **-a-* becoming *e* after a front vowel and *ḷ*.

23. Kui

The declensional forms of the neuter demonstrative pronouns and numerals deserve special attention.

Demonstrative neuter pronouns

	'Singular'	'Plural'
Nom.	*i:ri*	*i:vi*
Gen.	*i:ra*	*i:va*
Acc.	*i:raṛiki*	*i:vaṛiki*

Numerals 'one' and 'two' are declined for accusative only.

	'one'	'two'
Nom.	*ronḍe*	*ri:nḍe*
Acc.	*ronḍa*	*ri:nḍa*

The accusative suffix in all other forms is *i* which like other case suffixes is added to the genitive form. Compare

neganju 'good man'	:	*negani* (gen.)
		neganii (acc.)
aja 'mother'	:	*ajani* (gen.)
		ajanii (acc.)

Therefore, the final *-a* in the demonstrative neuter pronouns and the numerals, is not to be considered as an accusative suffix but as part of the genitive form. Note that "the accusative case suffix is often omitted and the accusative is inferred from the context"[26] in the neuter nouns. As *a* is

[26] Winfield, 1928, p. 27

not part of the root, and *an* is found as an augment after neuter demonstrative pronouns and numerals in other languages, it can be considered as the augment.

24. Parji

The neuter forms of the numerals 'two' to 'five' have two alternants one with final *-k* and another without it. The case suffixes are added to the former. As the forms with *k* are used "in the main indiscriminately" it cannot be taken as an augment and the comparative evidence confirms this.

III. Comparative Reconstruction

From a comparative study of the material presented above, it is necessary to reconstruct **-an-*, **-ṯṯ-*, **-in-*, **-a-* and **-tt-* for Proto-Dravidian. In some of the languages, combinations of these augments also occur. The augments are discussed below separately.

25. **-an-*

It occurs after demonstrative and interrogative neuter singular pronouns. The proximate demonstrative pronoun is taken for illustration and its nominative and oblique forms are given below:

	Nom.	Obl.
Ta.	*itu*	*itaṉ-*
Ma.	*itu*	*itan-/itin-*
Ko.	*id*	*idn-* (except before acc.)
To.	*iθ*	*in-*
Koḍ.	*idi*	*idan-*
Ka.	*idu*	*idaṟ-/idar-* (except before acc.)

Tu.	*indu*	*inde–*
Te.	*idi*	*di:ni–* (<**idani*)
Go.	*e:l/id*	–
Konḍa	*ve:d*	–
Kui	*i:ri*	*i:raṛi–*
Kuvi	*i:di*	–
Kol.	*id*	*id–*
Nk.	*id*	*id–*
Pa.	*id*	*id–*
Ga. (Oll.)	*id*	*id–*
Kur.	*i:d*	*i:di–* (except before acc.)
Malt.	*i:th*	*i:thi–*
Br.	*da:d*	*da:–/da:d–/da:r–*[27] (*DED* 351)
PDr.	**itu*	**itan–*

The vowel *–i–* in the second syllable of the oblique form in Malayalam, Kuru<u>kh</u> and Malto may not be due to sound change but only due to analogical extension of the augment *–in–*. This is also found in Middle Tamil. This is a convergent development. The non-occurrence of this augment before accusative in Kota may be due to haplology (**itanan*> **idan*> *idn*) in pre-Kota period.

The absence of any augment in Kol.–Pa. group should be attributed to innovation in Pre–Kol.–Pa. period. Similar innovation is also found in Modern Colloquial Tamil.

As far as the augment before the numerals is concerned, material is available for SDr. and CDr. only.

Ta.	*a<u>n</u>*	(in OTa.)
	i<u>n</u>	(in MTa.)
Ma.	*in*	
Ko.	*n*	
Koḍ.	*a:n*	

[27]Emeneau, 1962

Ka.	*ar̲/ar*	(except before acc.)
Te.	*i(n̥)ṭi*	
Kui	*a*	
PSDr. & PCDr.	**an*	

In Brahui, all the numerals are declinable in the singular like ordinary substantives.

As there is no intermediary stage like PSCDr. between PDr. on the one hand and PSDr. and PCDr. on the other hand, the augment **an* which we reconstructed for PSDr. and PCDr. individually can also be reconstructed for PDr. as well.[28]

Telugu *i(n̥)ṭi* is nothing but the combination of the two augments, **in* and **ti*. **in+ti* > **inr̲i* > *inṭi*. It seems to be an innovation peculiar to Telugu with regard to numerals. For the development of the Kannada form *ar̲*, see below.

26. **-t̲t̲-*

It is found after neuter plural demonstrative and interrogative pronouns in SDr., CDr. and NDr. The following are the remote demonstrative neuter plural forms taken for illustration.

	Nom.	Obl.
Ta.	*avai*	*avar̲r̲ir̲-* (before dative)
		avar̲r̲- (elsewhere)
Ma.	*avai*	*avar̲r̲ir̲-/avaiyir̲r̲ir̲-* (before dative)
		avar̲r̲-/avaiyir̲r̲- (elsewhere)
Ko.	*ad*	*ad-*
To.	*aθa:m*	–

[28]For general theory, see Greenberg, 1957, pp. 49-50

Koḍ.	*adī*	–
Ka.	*avu*	*avar̲–/avar–* (except before accusative)
Tu.	*avu*	*ei–* (Brigel) *ay–* (*DED*)
Te.	*avi*	*va:ni–* (OTe.) *va:ṭi*[29]– (MTe. & NTe.) < **avar̲r̲–*
Go.	*au*	*ave:hk–*
Konḍa	*va:k*	–
Kui	*a:vi*	*a:vaṛi–* (before dative) *a:va:–* (elsewhere)
Kuvi	*a:ati*	–
Kol.	*adav*	*adav–/adavl–*
Nk.	*adav*	*adav–*
Pa.	*av*	*av–*
Ga. (Oll.)	*av*	*av–*
Kur.	*abṛa:*	*abṛa:–* (before dat. and gen.) *abṛan–* (elsewhere)
Malt	*a:th*	*a:thi–*
Br.	*e:fk*	*e:fte–* (*DED* 1)
PDr.	**avai*	**avat̲t̲–*

The general tendency to use the nominative for the oblique is found in languages like Kol., Pa., etc. However, the oblique form is used in the nominative in Kurukh. The phonetic development in Kurukh is not clear.

–r̲r̲– is found after *ella:* 'all things' in New Malayalam and in Kannada. The oblique form of *ella:m* is *ella:tt–* in Modern Colloquial Tamil and it indicates that *–r̲r̲–* should

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[29] *va:ṭi* is found in 13th cent. Te. inscriptions. See Kandappa Chetty, 1966

have been used in Pre-New Tamil also.[30] In addition, Malayalam and Tamil have *-aṟṟ-* in old literature. Kota has no augment after *elm* 'all things'. The accusative form is *elmn*. Koḍagu does not use any augment in this case. As the oblique forms in other languages are not available, *-ṟṟ-* (i.e. **ṯṯ*) can be reconstructed after *ella:m* at present, only for PSDr.

-aṟṟ- also occurs after *pala* 'many' and *cila* 'few' in Tamil. Malayalam has *-ṟṟ-* and *-aṟṟ-* in those two words and Kannada has *-ṟṟ-* only. *-ṟṟ-* may probably be original and *aṟṟ* may be a later development.

L. V. Ramaswami Aiyar connects Kannada *aṟ* with Tamil *aṟṟu* occurring after neuter plural demonstrative pronouns and explains that both of them should "very probably owe their finals to pre-historic sandhi changes in which the junction of *an* with other sounds was involved".[31] The other sounds may be *tu* (**aṉ+tu>aṟṟu*). It is to be noted that voiceless geminate plosive of Tamil corresponds to voiced plosive (single) in Kannada in the non-initial position.[32] So, *aṟṟ* is found as *aṟ* in Kannada.

The peculiarity of Kannada is the use of *-aṟ-* after neutep singular demonstrative and after numerals. The tendency to use the same augment in singular and plural is found in somt other languages also. For instance, Old Telugu has *an*, (the augment used in singular) for plural form.

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[30]The first recorded evidence for the oblique form *ella:tt-* is available in 18th cent. See Beschi, 1813, p. 29

[31]Ramaswami Aiyar, Vol. I, "Dravidic Sandhi"

[32]I am thankful to Dr. P. S. Subrahmanyam for this information. Note the correspondence in words like Ta. *eṉakku* 'to me': Ka. *enage* id.; Ta. *tamakku* 'to him' : Ka *tamage* id. This will also explain the correspondence of the augment *tt* of Tamil with the *d* of Kannada; Ta. *maratt-* : Ka. *marad-*.

adi 'it' *da:ni* < **adani*
avi 'they' *va:ni* < **avani*

In MTa. *ar̲r̲* occurs after *itu* 'it' in a ninth century inscription. Therefore, this kind of analogical development (i.e. the augment for plural used in singular) should have taken place in Pre-Kannada period.

The final vowel *-u* of the plural nominative in Kannada, *avu*, may be patterned on the model of the final vowel of the singular, *atu.* The absence of the augment before accusative may be explained as follows. It should have been lost in the singular first due to haplology before the replacement of the augment *-an* by *-ar* (see § 25) and then this was analogically extended to plural also.

27. **-in-*

-in- occurs after vowel endings (mostly *-a:*, *-u*, *-u:* and *-o:*) and after all consonantal endings except *-m* and *-n* (mostly in closed short monosyllabic words) in Tamil, Malayalam and Kannada. All consonantal ending words became vowel ending (in the main *u*) in Telugu, and the augment *i* occurs after words ending in *-u.* Kui has *-i/ni/n-* after non-neuter nouns. As already explained in § 20, Kol.-Pa. group has **un* between dative and any noun and *(i)n* before instrumental. Malto has *-n-* between ablative and a noun. Brahui has *-a-* after long monosyllabic words and *n* between genitive and any noun.

In most of the languages *-in-* is obligatory only before dative and optional before other case suffixes. Later on, it became obligatory before other case suffixes and it is not uniform even in closely related languages. For instance, *in* is obligatory in Malayalam before genitive but in Old Tamil before instrumental.

The occurrence of *-i-* after masculine nouns ending in *-ḍu* and demonstrative pronouns in Telugu seems to be a case of innovation (convergent development) rather than inheritance. Kannada has *-in-* or *-i-* after masculine nouns and before dative from 7th century but it is not found after demonstrative pronouns upto 10th century in the inscriptional records. For Telugu, nothing is known about inscriptional language. Konḍa has *-i-* before genitive and dative only. Kui has *-i-* after masculine nouns. Kuru͟k͟h uses this augment *-i*, after the neuter singular demonstrative pronoun only. However, Malto has *-i-* after all demonstrative pronouns. The irregularity can be explained as due to independent innovation in all the languages.

As pointed out in § 1.3, even though Tolkappiyam prohibits the use of augment *-in-* before case suffix *-in*, there are some examples contrary to that rule. There are also examples in Literary Malayalam (Exx: *poḻut-in-il* 'in time'; *at-in-il* 'in it') (though not in Inscriptional Malayalam) and in Kannada [Exx: *imb-in-in* 'with the sweetness' (7th century inscription); *oḷp-in-im* 'with distinction' (10th century)]. This is only a convergent development.

There is no form with *-in-* after front vowels in Kannada upto the 10th century. There are some sporadic occurrences of the augment *-iṉ-* in Tamil and Malayalam, after front vowels.

Exx:	Ta.	*kaliyiṟku*	'to the kali metre' (Tol.1316)
		kalikku	id. (ibid. 1312)
		kulaiyiṉai	'bunch (acc.)' (Kal. 45.2)
		ve:ṅkaiyai	'tiger (acc.)' (ibid. 49.6)
	Ma.	*ile:kai-y-in-a:l*	'with the line' (11th century)
		ceykai-y-a:l	'with action' ,,

The addition of *i* after words like *mra:nu* 'tree', *kolanu* 'tank', etc. in Telugu is an innovation. As *tt* is found in all SDr. languages and many other CDr. languages (See § 29 for the cognates of Telugu *mra:nu*), it is an analogical innovation on the model of the words like *me:nu* 'body', *ku:nu* 'a humped back', etc., which have *me:ni*, *ku:ni*, etc. as their oblique forms.

The regular addition of the nasal *n* after plural suffix in Gondi, Kui and Kuvi has to be taken as a special development in these languages. Gondi uses *–n–*, Kui has *–n/ni–* and Kuvi *–ṇ–*.

–in after the augments *–tt–* and *–ṟṟ–* and before dative in Tamil-Malayalam is an innovation common to both the languages.

28. **–a–*

This is found after plural suffix in Tulu, Telugu, Koṇḍa and Brahui.

Tulu has **–a–* after all plural suffixes. Telugu has this augment after plural suffix *–lu* and Koṇḍa after plural suffix *–k–*. Brahui has *–e–* before all case suffixes (See § 21). So, **–a–* can be reconstructed to PDr.

Tulu and Brahui have this augment after personal pronouns. Tulu has **–a–* before all case suffixes except dative. Brahui has *–e–* before all case suffixes except conjunctive and after all personal (of course, II person singular pronoun underwent some additional changes) and reflexive pronouns in the singular as well as in the plural.

Tamil, Malayalam and Kannada have *–a–* in the personal pronouns before dative in both the numbers. Kota has no augment in pronouns and it is due to the loss of vowel in the

second syllable.[33] (Exx: **namadu* 'our'> *namd*; **maram* 'tree' > *marm*, etc.) Telugu has *-a-* before dative in I person inclusive pronoun and reflexive pronoun. The absence of *-a-* after other personal pronouns is explained as due to the special development, i.e. metathesis,[34] and so *-a-* can be assumed to have existed after all personal pronouns in Telugu. Kuru<u>kh</u> has *-a-* before dative in the personal pronouns only. So **-a-* can be reconstructed in the personal pronouns before dative to PDr.

The use of *-e-* before other case suffixes in Brahui may be either due to the analogy of the augment found after plural suffix or due to the augment *-a-* found in the long monosyllabic words. The loss of this augment before dative in Tulu is an innovation in that language. It is to be noted that in OTa., there are a few instances where [*eṟku* 'to me' (Kal. 86.29), *niṟku* 'to you' (Maṇ. 10.13)] *-a-* is absent after personal pronoun and before dative.

Telugu has the augment *-a-* between *-mu* ending neuter nouns and the dative case suffix. This augment is preceded by another augment, viz. *-n-*. Kuvi also has the augment *-a-*. The history of this *-a-* in these two languages is not clear at present.

29. **-tt-*

It occurs after *-m/-n* ending. Note the occurrence of the oblique form of *maram/maran* 'tree' (*DED* 3856) in almost all the languages.

	Nom.	Obl.	
Ta.	*maram*	*maratt-*	(except before sociative)
Ma.	*maram*	*maratt-*	"

[33] Emeneau, 1957, p. 63

[34] Subrahmanyam, 1969, § 13

Ko.	*marm*	*mart–* (except before sociative)
To.	*me:ṇ*	*me:ṇṭ-*
Koḍ.	*mara*	*marat–* (except before dative)
Ka.	*mara*	*marad–* (except before dative and accusative)
Tu.	*mara*	*marat–* (only before genitive)
Te.	*mra:nu*	*mra:ni–*
Go.	*mara*	*marat-*
Koṇḍa	*maran*	*marat–*
Kui	*mrahnu*	*mrahnutin–* (before dative and accusative)
Kuvi	*mra:nu/marnu*	*marnuti–* (before genitive)
Kol.	*ma:k*	*ma:k–*
Nk.	*ma:k*	*ma:k–*
Pa.	*meri*	*merto–* (before genitive)
Ga. (Oll.)	*mar/marin*	*marṭe–* ,,
		martin– (before locative)
Kur.	*mann*	–
Malt.	*manu*	*man–*
PDr.	**maram/maran*	**maratt–*

The restricted use of the oblique form as the inflectional base is worth-mentioning. Some of the languages (Tu. in SDr. and Kuvi, Gadaba and Parji in CDr.) have the oblique form in the genitive only. Among the South Dravidian languages, Ta., Ma., To. and Ko. uniformly use *–tt-* before accusative, dative, instrumental, genitive and locative, Koḍagu before accusative, instrumental, genitive and locative and Kannada before instrumental, genitive, and locative. So, it is better to reconstruct the augment **–tt–* only before genitive to PSCDr. and hence to PDr. stage and the use of the oblique form before other case suffixes is only a later innovation. The employment of oblique

base before all case suffixes except accusative, sociative and dative should have taken place in SDr. after the separation of Tulu from PSDr. The use of oblique base before accusative in Tamil, Malayalam, Kota, Toda and Koḍagu should only be after the separation of Kannada, i.e. in Pre-Ta.–Ma.–Ko.-To.-Koḍ. period. The extension of the oblique form before dative could be attributed to the period of Pre–Ta.–Ma.–Ko.-To. period, i.e. after the separation of Koḍagu. Note that in OTa. there are some instances (see fn. 17) where *-tt-* is absent before dative. It is also to be noted that Tamil has regularised its oblique form even before sociative optionally in OTa. and obligatorily from MTa. onwards. So also, Malayalam has made this regularisation even in OMa. Gondi and Koṇḍa have generalised the use of the oblique before all case suffixes independently.

-t- is found when *ṭ/ṟ* is preceded by long syllable in SDr. and CDr. languages. The following entries in *DED* have this augment.

Nom.		Obl.	
na:ṭu	'country'	*na:ṭṭ-*	(*DED* 3012) – Ta., Ma., Ko., To., Te., Go., Koṇḍa, Kui and also Kuvi[35]
ka:ṭu	'forest'	*ka:ṭṭ-*	(*DED* 1206) – Ta., Ma., Ko., To., Te.
ya:ṟu	'river'	*ya:ṟṟ-*	(*DED* 4233) – Ta., Ko., Te. and also Gondi[36] and Kui.[37]
a:ṟu	'way'	*a:ṟṟ-*	(*DED* 347) – Ta., Ko., To.

[35] The Kuvi form is not noted in *DED*. See Burrow and Bhattacharya, 1963, p. 250

[36] Information on Gondi from P. S. Subrahmanyam

[37] Burrow and Bhattacharya, 1961, pp. 122, 135

Kolami *ve:gaḍ* 'field' (nom.) and *ve:gaṭ-* (obl.) are related to Tamil *vayaṟka:ṭu* (nom.) 'tract of wet lands, paddy field' and *vayaṟka:ṭṭ-* (obl.) respectively. The augment *-t-* in these words is found only in SDr. and CDr. and it can be reconstructed for PDr. also. (For explanation see § 25).

It is interesting to note that Koḍagu, Kannada, Tulu and the NDr. languages do not have this augment.

The addition of *t* (with sandhi change) after the word *illu* 'house' (*DED* 420)[38] is common innovation in Telugu, Konḍa, Kui and Kuvi.

	Nom.	Obl.
Te.	*illu*	*inṭi-*
Konḍa	*il*	*inḍr(o)-*
Kui	*iḍu*	*ijo-*
Kuvi	*il*	*ijo-*
	**il*	**inṯ-*

Similarly, the addition of *-t-* after *kaṇ* 'eye' in Telugu (*kannu/kanṭ-*) and Gondi (*kaṟ/kaṟd-*) (*DED* 973a) and after *kai* 'hand' in Telugu (*ce:yi/ce:t-*) and in Gondi (*kai/kaid-*) (*DED* 1683) may be a common innovation in Telugu and Gondi. The ultimate origin of *-t-* in these words is not clear.[39]

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[38] Burrow and Bhattacharya, 1963, p. 250

[39] Note that *-t-* also occurs either before plural suffix or as part of the noun in many CDr. languages but there is no uniformity. E.g., *d* occurs after *kan* 'eye' and before plural in Te., Kol. and Nk. (*DED* 973a) and in a compound in Kui (*DED* 973b) and after *pun* 'wound' (*DED* 3506) before plural in Kol. and as part of the stem in Te. (also in Tulu ?). See also *DED* 3537 and 4518. In the word *illu*, no language other than Telugu has *-t-* either in the plural or as part of the noun.

30. –*k–

It is found in Kurukh and Malto after singular personal pronouns, reflexive singular pronoun and the interrogative human noun.

In both the languages, *k becomes g after nasal (i.e. after personal and reflexive pronoun).

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Evidence for a Locative Case in Telugu
(with some Dravidian comparisons)

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Modern Telugu nouns and pronouns are generally considered to be declined only for the accusative and the dative cases. Markers of the accusative and the dative are suffixed to the oblique base, which base also serves as the genitive. But there is evidence for another case, the locative (not to be confused with the so-called locative postposition *lo:* < *lo:na* 'on the inside'). The locative suffix generally takes the form *-a* and is attached to the oblique base. However, in the case of forms that lack any overt marker of the oblique, the locative appears as *-na*.[1]

Existing analyses classify *-a* ∞ *-na* as a postposition. But it is clearly a suffix. Postpositions, on the other hand, are a special class of nouns. Like other nouns they can acquire case suffixes, but unlike other nouns they do not form plurals. For example, the postposition *lo:niki* 'into', as in *iṇṭi lo:niki* 'into the house', is a noun *lo:nu* 'the inside' declined for the

[1]In Old Telugu the locative apparently was *-a(n)* ∞ *-na(n)*. For example, *iṇṭā-gala dhanamu* 'the money that is in the house'. See Bh. Krishnamurti, 1961, p. 234. *-ã* indicates alternation between *-a* and *-an*. *Ibid.*, p.3. (The hyphen after *-iṇṭā* implies that it was bound to *gala* or some other adjective. However, as an adverbal phrase it could hardly have been a bound word.)

dative. The oblique/genitive form is *lo:ni* 'which is inside'. There is even a locative *lo:na* (*lo:ni* + *-a*). *lo:* appears to be a shortened form of *lo:na*.

The locative case suffix is generally restricted to singular noun bases, and occurs only rarely on plural noun bases, where in fact it becomes identical in shape with the oblique/genitive plural – – as in *co:ṭḷa* 'in places, of places'.

Constructions in the locative case are typical of the more formal, literary style of speech – – e.g. *manamuna* 'in the mind', *ka:gitamuna* 'on paper'. But forms in the locative do occur in modern standard Telugu speech, particularly as the final element of postpositions but sporadically elsewhere as well. Observe the following sentences collected by me from the colloquial speech of several educated speakers of standard Telugu. (For purposes of comparison the oblique/genitive and nominative bases are supplied where they can be identified.)

na: kaṇṭa paḍite: campe:sta:nu 'If I see him, I'll kill him.' – *kaṇṭa* 'in the eye' : *kaṇṭi* (obl./gen.) : *kannu* (nom.)

ka:li naḍakana osta:wa: 'Are you going to come on foot?' – *naḍakana* 'by walking' : *naḍaka* (nom.)

mi:ku i: pani ce:ta-n-awtunda: 'Is it possible for you to do this work?' – *ce:ta* 'in the hand' : *ce:ti* (obl./gen.) : *ce:yi* (nom.)

gaṭṭuna ku:rcunda:mu 'Let's sit on the edge (bank)' – *gaṭṭuna* 'on the edge (bank)' : *gaṭṭu* (nom.)

inṭi lo:pala śubhranga: undi 'Inside the house everything is clean' – *lo:pala* 'on the inside' : *lo:pali* (obl./gen.)

de:wuḍu prati co:ṭa unna:ḍu 'God is everywhere' – *co:ṭa* 'in a place' : *co:ṭi-* (obl.) : *co:ṭu* (nom.)

anni co:ṭḷa anya:yam perigi po:tu: undi 'Everywhere injustice is increasing' – *co:ṭḷa* 'in places' : *co:ṭḷa* (obl./gen.) : *co:ṭḷu* (nom.)

ka:yitam madhyana cedi po:yindi 'The paper is torn in the middle' – *madhyana* 'in the middle' : *madhya* (nom.)

a: la:guna ce:yi 'Do it that way' – *la:guna* 'in a manner' : *la:gu* (nom.)

i: adda do:wana po:da:m 'Let's take this short cut' – *do:wana* 'on a path' : *do:wa* (nom.)

pustakam kinda padindi 'The book fell down' – *kinda* 'on the lower part' : *kindi* (obl./gen.)

onta patta le:du 'I didn't pick up that habit' – *onta* 'in the body' : *onti* (obl./gen.) : *ollu* (nom.)

awatala undi 'It's on the other side' – *awatala* 'on the other side' : *awatali* (obl./gen.)

padamata pedda patnam undi 'To the west there's a large city' – *padamata* 'on the west (side)' : *padamati* (obl./gen.) : *padamara* (nom.)

i:-y-e:ta la:bham ra:le:du 'I didn't make a profit this year' – *e:ta* 'in the year' : *e:ti* (obl./gen.) : *e:du* (nom.)

re:p-podduna ne:nu u:riki welta:nu 'Tomorrow morning I'll go to town' – *podduna* 'in the morning' : *poddu* (nom.)

samudrapu odduna pillal-a:dutunna:ru 'The children are playing on the seashore' – *odduna* 'on the shore' : *oddu* (nom.)

inta, bayata go:laga: undi 'Inside the house and outside, it's noisy' – *inta* 'in the house' : *inti* (obl./gen.) : *illu* (nom.)

inti lo:na kondaru, inti bayata kondaru, ku:rcunna:ru 'Some people were sitting inside the house, some outside' – *bayata* 'on the outside' : *bayati* (obl./gen.) : *bayalu* (nom.)

a: manisi lo:na manci undi 'There is good in that person' – *lo:na* 'on the inside' : *lo:ni* (obl./gen.) : *lo:nu* (nom.)

na: to:da waccæ:du 'He came with me' – *to:da* 'in conjunction with' : *to:di* (obl./gen.) : *to:du* (nom.)

a:-y-inti edata ca:la sthalam undi 'Opposite that house there is a lot of space' – *edata* 'on the opposite side, in front of' : *edati* (obl./gen.) : *eduru* (nom.)

modaṭa na:k-artham ka: le:du 'At first I didn't understand' – *modaṭa* 'at first, in the first place' : *modaṭi* (obl./gen.) : *modalu* (nom.)

ka:yitam payna ra:yi 'Write on the paper' – *payna* 'on the upper part' : *pay* (nom.)

de:wuḍu antaṭa unna:ḍu 'God is everywhere' – *antaṭa* 'in all places' : *antaṭi* (obl./gen.) : *anta* (nom.)

nela kindaṭa ne:nu waccæ:nu 'I came a month ago' – *kindaṭa* 'ago' (lit. 'in the downward, or lower part') : *kindaṭi* (obl./gen.) (apparently connected with *kinda* : *kindi*)

balla mi:da undi 'It is on the table' – *mi:da* 'on the upper part' : *mi:di* (obl./gen.)

adi nalabhai gaja:la du:ra:na wunnappuḍu, ne:nu cepta:nu 'When it's 40 yards away, I'll tell you' – *du:ra:na* 'at a distance' : *du:ra:ni* – (obl.) : *du:ram* (nom.)

When we search for related forms in other Dravidian languages we find that the locative case suffix is most often a sequence like *-a:l*, *-il* or *-inda*, none of which appears to be similar to the Telugu form. However, there is a morpheme, *-andu* ∞ *-nandu* 'in, on, at' in Telugu which resembles the locative *-inda* or *-inde* of certain Dravidian languages – – e.g. *gurramunandu* 'on horseback'. Subrahmanya Sastri, 1947, argued that the final *-a* of many postpositions in Telugu is a shortened form of *-andu* (pp. 122-5). Thus he identified *walana* 'by means of' as an abbreviated form of *walanandu*,[2] *to:ḍa* 'in conjunction with' as a shortened variant of *to:ḍandu*, *lo:na* 'on the inside' as *lo:nandu*, and *ce:ta* 'in the hand' as

[2]This should probably be analyzed as *wala-nandu*, with *wala* being considered as a variant of *walla* 'convenience, possibility'. Apparently because this form lacks an overt marker of the oblique, *-nandu* appears rather than *-andu*. The similarity in patterning between this morpheme and *-a* ∞ *-na* would seem to be a further argument in support of their ultimate identity.

ce:tiyandu. These forms appear to be confined to the litetary style in Modern Telugu. However, interestingly, the form *-andu* at least occasionally occurs in the informal style in conjunction with personal pronouns: *ni:-y-andu nammakam unci, ḍabbu oppajeppæ:nu* 'Having reliance on you, I handed over the money to you', *mi:-y-andu gawrawam unci, mi:ku oppajeppæ:nu* 'having respect for you, I placed you in charge'.

There also seem to be connections with locative case formants in Kui and Kuvi. Burrow and Bhattacharya, 1963, describe a special locative case suffix in Kuvi that occurs only with certain neuter nouns (pp. 247, 249). It is, however, attached to either singular or plural bases. This suffix has the form *-a* after singular bases, *-ṇa* after plural bases, as in the following example:

kaḍḍata 'in the river' : *kaḍḍati* (gen.) : *kaḍḍa* (nom.)
kaḍḍañaṇa 'in the rivers' : *kaḍḍañati*(gen.) : *kaḍḍaña* (nom.)

Compare the forms in the singular with those in Telugu, e.g. *ce:ta* 'in the hand' : *ce:ti* (obl./gen.) : *ce:yi* (nom.). In both languages *-ti* is the oblique formant, and *-a* (with the alternant *-ṇa* in Kuvi) is the locative case suffix.

As to Kui, Winfield, 1928, states that "A locative case of neuter plurals is sometimes expressed by the addition of the postposition *tani* contracted to *-ni*." (p. 28). He cites, for example, the expressions *kangani* 'in the sight of' and *sōrkani* 'on the hills'. Winfield further states that to a few words in the singular the suffix *-a* is attached to express the locative, as in *paḥeria* 'on the road' and *kambōria* 'in the forest'. He also lists a suffix of location *-nḍo* 'at, at the place of' (pp. 24, 28). Compare this with the Telugu *-andu* ∞ *-nandu.*

It is significant that Telugu is closely related to Kui and Kuvi. These languages in fact continued for some time as a

single entity, which Krishnamurti, 1961, terms "Common Kui-Telugu" (p. 51), after their separation from Central Dravidian. It would not be surprising, therefore, if this subgroup had developed some special forms during the period before the final emergence of Telugu as a separate language. Certainly Telugu shares with Kui certain exclusive features, such as the imperative second person singular suffix *-mu*.

It might also be possible to find connections between the Telugu locative and the instrumentals and ablatives of a number of Dravidian languages. Some Telugu locative forms do have instrumental or ablative meanings -- e.g. *naḍakana* 'on foot, by walking', or, in the literary language, *ne:ṭa* 'from today'. Parallels could be seen in an instrumental suffix in Kolami[3] which takes the form *-aḍ* after consonants and *-naḍ* after vowels, or possibly with a "local" suffix cited by Emeneau which occurs as *-nadaṅ* on singular nouns and *-adaṅ* on plural nouns. However, the case for connections with locative forms in Kui and Kuvi seems to me to carry greater weight.

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(*Participants in the discussion following the seminar presentation of the first version of this paper: N. Kumaraswami Raja, Bh. Krishnamurti, S. Agesthialingom, S. V. Shanmugam, K. Balasubramanian and G. Vijayavenugopal.*)

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[3]See Emenenu, 1961, p.62.

Dravidian Nasals in Brahui*

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There are at least six definite etymological groups supporting the correspondence Brahui *d–* : other languages *n–* (<PDr. **n–*). as follows:

(1) PDr. **neyttV:r* / **nettVr* 'blood'. Ta. *neytto:r;* Ka. *nettar(u);* Tu. *netterī*; Te. *netturu;* Kol. *netur;* Nk. *nettur;* Pa. *netir;* Gad. *nettu:r*; Go. *nettur*, *netur;* Kui *nederi* [balance word with *raka* 'blood' (which is Or.)]; Kuvi (F) *netori;* Koṇḍa *netir* : Br. *ditar* (*DED* 3106)

(2) PDr. **ne:r–* : **ner–V–nal* 'yesterday'. Ta. *neruṉal* *neruṉai*, *neṉṉal* 'yesterday' : Br. *daro* (*DED* 3109)

(3) PDr. **ne:r* : **ner–V–* 'to cut off'. Ta. *ne:r* 'to cut off, sever'; Ka. *ne:r* id. (*DED* 3127) : Br. *dann–* (pres. *de:–*, imp. *da–*, *dar*, *darak*, past *dare:*) 'to cut (of a knife), blight, usurp, carry off' (*DEDS* 3127)

(4) PDr. **ne:r* 'sun, time'. Ta. *ne:ram* 'time, season, opportunity'; Ma. *ne:ram* 'sun, day, light, time, season, hour, turn'; Koḍ. *ne:ra* 'sun, time'; Tu. *ne:rḍɛ* id. (*DED* 3128; cf. 2371) : Br. *de:* 'sun, sunshine, day, time' (*DEDS* 3128)

(5) PDr. **ni:r* 'water'. Ta. *ni:r* 'water, sea, moisture'; Ma. *ni:r* id.; Ko. *ni:r* 'water, semen'; To. *ni:r* 'water'; Ka. *ni:r;*

* I have greatly benefited from discussion on this problem with Professor Emeneau; I also thank him for having encouraged me to publish this paper.

Koḍ. *ni:ṛï*; Tu. *ni:rï;* Te. *ni:ru*; Kol. Nk. *i:r* 'water'; Pa. Gad. *ni:r*; Kui *ni:ru* 'juice, sap, essence' : Br. *di:r* 'water, juice, sap' (*DED* 3057)

(6) PNDr. **ne:r* 'who'. Kur. *ne:* 'who'; Malt. *ne:re(h)*, *ne:ri(th)*, *ne:rer* 'who, which man/woman/men, etc.' : Br. *de:r*, *de:* 'who' (sg. & pl.) (*DED* 4228)

Of these, the identification of Group (5) Br. *di:r* : other languages *ni:r* first occurs in Caldwell (1913, p. 634), and that of Groups (1) (4) (5) and (6) occurs in the etymological comments on Brahui vocabulary given by Bray himself (1934, v. s. vv.). However, Bray suggested wrong grouping of Ka. *ne:sar* 'sun' with Ta. Ma. *ne:ram*, under Br. *de:* 'sun, time' (Group 4). Burrow and Emeneau had earlier preferred the grouping of Br. *de:* 'sun, time' with Ta. *ña:yiṟu*, Ka. *ne:saṟu* (*DED* 2371). They have recently accepted my suggestion that Br. *de:* goes better with *DED* 3138 (**ne:r*) than with 2371 (**ña:caṯ*) and this revision appears in the recent supplement to *DED* (*DEDS* 3128).

In a recent article, Emeneau (1962, pp. 60–1) has discussed his identification of the etymology, Ta. Ka. *ne:r* 'to cut off' : Br. *dann–*, *de:–*, *dar–*, *de:r–* and reconstructed PDr. **ne:r–*/ **ner–V–* to account for the correspondence. PDr. **e*> Br. *a–* is an established correspondence which Emeneau has amply illustrated elsewhere (1962, p. 10). He has also discussed the etymological grouping of Br. *daro:* 'yesterday' with Ta. *ne:ṟṟu*, *neruṉai*, etc. in *DED* 3109 (Emeneau 1961,p.4). He included two series of etyma under this etymology reconstructing to **ne:r* and **ne:ṯ* (=*ne:ṟ*), presumably on the assumption that the final *–r* and *–ṯ* could be treated as derivatives with **ne:* as the ultimate root (1961, p. 4).

(7a) PDr. **ne:ṯ* 'day'. Ta. *ne:ṟṟu* 'recently'; Ko. *ne:r* (obl. *ne:ṯ–*) 'yesterday'; *mine:r* 'any day before yesterday'; To.

īne:ṟ 'yesterday'; *mu–ne:ṟ* 'day before yesterday' (*DED* 3109)

(7b) **ne:r* : *ner–V–* 'yesterday or day'. Ta. *neruṉal, neruṉai, neṉṉal* 'yesterday'; Ma. *innale*: 'yesterday' (Here, the first element is not cognate with Ta. *neru–*); Ka. *ninne* 'yesterday'; Te. *ninna* (Here, the final syllables Ka. *–ne*, Te. *–na*, seem to be cognate with Ta. *–ṉai* in *neruṉai* rather than with *–ṉal*); Go. *ninne*: (obl. *ninne:ṭ*). In some languages **na:ḷ* 'day' underlies the second element of such compounds (*DED* 3025); also cf. 4119 (b) Ta. *muṉ–ṉa:ḷ* 'yesterday'; Te. *monna* 'day–before–yesterday' (< **mun–nay*).

There are two doubtful etymologies which have been proposed for the correspondence Br. *d–* : other languages *n–*. One of these, frequently cited with a question, is impossible and is therefore rejected here (Emeneau 1961, p.4), viz.

> PDr. **na:*, **na:l–ku/na:n–ku* 'tongue'. Ta. Ma. *na:*, *na:vu, na:kku* 'tongue'; Ko. *na:lg, na:v*; To. *no:f*; Ka. *na:lage, na:lige*; Koḍ. *na:vu*; Tu. *na:la(:)yi*; Te. *na:l(i)ka, na:l(u)ka*; Kol. Nk. *na:lka*; Pa. *nevāḍ*; Oll. *na:ṅ* ; Gad. *na:ngu*; Koṇḍa *na:lka* : Br. *du:i*: 'tongue' (*DED* 3009)

Another one, which Emeneau (1961, pp. 4–5) recently proposed with a certain amount of hesitation is the grouping of Br. *da:* '*this*' (proximate demonstrative) with Malt. *na*: 'that one here', which is an extended form of the further demonstrative which is "generally employed when the party referred to is present" (Emeneau 1961, p.4). It would appear simple and less cumbersome to consider Br. *da:/da:d* 'this' as a straight loanword from the neighbouring Pashto, which has *da:* 'this' (Shafeev, pp. 34–5).

The six definite etymologies listed above thus establish Br. *d–* as a reflex of PDr. **n–*. While discussing the etymologies involving this correspondence, Emeneau (1962b, p. 61) says

that "these are in unexplained contrast with six instances of *n-> Br. n-". He mentioned this difficulty even earlier (1961, p.5): "this correspondence is not entirely cleared up, since there are a number of clear instances in which PDr. *n- is represented in Brahui by n- (*DED* entries 2980, 3019, 3051, 3055, 3064, 3089). We cannot go further at the moment". This is precisely the problem that I attempt to clear up in this paper.

The following groups support the derivation *n-> Br. n- (All these have been included in *DED*.)

(8) PDr. **nar-/*ar-* 'fear; be terrified'. Ta. *araḷ*, *aruḷ* 'be terrified'; n. 'fear'; Ka. *araḷ* 'terror'; Tu. *naraṅguni* 'to hesitate'; *naraguri* 'sheepish man'; Te. *aragali* 'hesitation'; Kol. *ari* 'fear'; *arp-* 'to terrify'; Nk. *ari* 'fear'; Pa. Oll. Gad. *nar* 'fear'; Malt. *arkar-* 'be terrified' : Br. *narring* 'flee, run away' (*DED* 2980)

(9) PDr. **ña:m* (less likely **na:m*) 'we (incl.)'. Ta. *na:m/namm-*; Ka. *na:vu-* (*nam-*); Tu. *nama* 'we (incl.)'; Te. *ne:mu* 'we (excl.)', *mana-mu* (**nama-*) 'we (incl.)'; Nk. *ne:m* 'we (incl.)'; Go. *namoṭ* 'we (excl.)'; Kur. Mal. *na:m* (*nam-*) we (incl.)' : Br. *nan* 'we' (no incl. - excl. diff.) (*DED* 2980; for discussion, see Krishnamurti 1968, pp. 189–202)

(10) PDr. **ni:n/nin-* ~ **i:n/*in-* 'you (sg.)'. Ta. *ni:* (*niṉṉ-*); Ma. *ni:* (*nin-*); Ka. *ni:nu* (*ninn-*); Tu. *i:* (*nin-*); Te. *ni:vu* (*nin-* before acc.); Pa. Oll. Gad. *i:n* (*in-*); Kol. Nk. (obl.) *in-* ; Go. *nima:*, *imma:* ; Kui *i:nu* (*ni:-*); Kuvi *ni:nu* (*ni:-*); Koṇḍa *ni:nu* (*ni:-*); Kur. Malt. *ni:n* (*niṅg-*) : Br. *ni:* (obl. *ne:-*, *n-*; enclitic gen., dat., acc. *-ne*) (*DED* 3051; Krishnamurti 1968, pp. 202–5)

(11) PDr. **ni:m/*nim-* ~ **num-* 'you (pl.)'. Ta. *ni:m* (*num-*); most other languages of SDr. and NDr. have *ni:m* (*nim-*); Pa. Gad. Oll. *i:m* (*im-*) : Br. *num* (obl. *num-*) 'you (pl.)'

(12) PDr. **nunk-* 'to swallow'. Ta. *nuṅku* 'swallow'; Ko. *nuṅg-* 'gulp down'; To. *nug* id.; Ka. *nuṅgu*; Tu. *niṅguni* 'swallow'; Kur. *nunukh-*; Mal. *nungh-* 'to swallow : Br. *nughushing* 'to swallow, devour' (*DED* 3064; cf. also 3062)

(13) PDr. **nu:ṯ : *nuṯ-V-* 'crush, pulverize'. Ta. Ma. *nu:ṟu*, *nuṟukku* 'crush, grind'; Ka. *nu:ṟu*, *nuṟi*, *nuṟuku* id.; Tu. *nuripuni* 'to powder'; Te. *nu:ṟu* 'grind'; *nu:rcu*, *nuṟucu* 'thrash'; Go. *no:r-* 'grind' : Br. *nusing* 'crush, grind'; *nuskhal* 'handmill' (*khal* stone); *nut* flour' (*DED* 3089). To these *DEDS* now adds:

(14) PDr. **na(:)ḷ/*na(:)ṉ* 'night'. Ta. *naḷ* 'night'; Kol. *a:le*; Nk. *a:ḷe* id.; Pa. *nendu-nal* 'midnight'; Koṇḍa *na:ṛa*; Kui *na:ḍangi* id. (*DED* 2997, 2985) Alternatively **nal/*al*. Ta. Ma. *al* 'night, darkness'; Ta. *nallam* 'blackness, darkness'; Te. *nalla*, *nalupu* 'blackness' (*DED* 199, 2990) : Br. *nan* 'night'

A close look at the reconstructions of all the groups 1 to 14 (excepting 10) would show clearly that the development **n-* > Br. *d-* is in complementation with **n-* > Br. *n-*; the former occurs before the reconstructed front vowels **i(:)*, **e(:)* and the latter before the non-front vowels **a(:)*, *u(:)*, *o(:)*. In other words these developments represent a split of the Proto-Dravidian phoneme **n-* into *d-* and *n-* in complementary environments in Brahui. This conclusion also implies that **e-* > *a-* in Brahui should antedate **n-* > *d-* (see Groups 2 and 3). It will be noticed that the Brahui items with *n-* followed by a front vowel are all later borrowings from the neighbouring Indic and Iranian languages.

There are 20 entries listed with *ne(:)* and 32 with *ni(:)* in Bray's Etymological Vocabulary (1934). With the exception of the variants of the 2nd pers. sg. pronoun constituting 4 entries, viz. *ne:* (dative-accusative of *ni:*), *ne:* (obl. base of *ni:*); *-ne* 'thee, of thee' (enclitic form of the pronoun of the 2nd

pers. gen. dat. and acc.); *ni:* 'thou', all the remaining 48 entries have been identified by Bray himself as loanwords from Persian, Arabic, Balochi, etc. Therefore, the only exception to the above formulation of **n-* > Br. *n-/d-* is the 2nd per sg. pronoun *ni:* which needs satisfactory explanation.

There are three possible explanations:

(1) That *ni:* 'thou' being a very basic item might have resisted sound change.

(2) A more plausible explanation would be that *ni:* which presumably became **di:* by the sound change could have been restored analogically owing to the preponderance of the *n-* forms. Study the following paradigm (Bray 1909, p. 77):

The 2nd person

	Sg. 'thou'	Pl. 'you'
nom.	*ni:*	*num*
gen.	*n-a:*	*num-a:*
dat. acc.	*n-e:*	*num-e*
abl.	*n-e:-a:n*	*num-e-a:n*
instr.	*n-e:-aṭ*	*num-e-aṭ*
conj.	*n-e:-to*	*num-to*
loc.	*n-e:-ṭ-i:*	*num-e-a:i*
	n-e:-a:l	

Under the analogical influence of *na:* and *num-* the nominative *di:* would have been restored to its original shape *ni:* after sequences with *n-* before front vowels were introduced in Brahui through borrowing. Here the principle is that a morph may regain its original phonemic form through analogy after the alternation in which it is involved has ceased to be automatic owing to later sound shifts or borrowing (see Hoenigswald 1960, pp. 108-9). It is also doubtful if *-e:*

which is an inflectional morpheme in *n–e:* (Bray 1909, p. 77) would have the same effect as radical *e:* traceable to a PDr. front vowel, which we hold responsible for the development **n– > d–*. The inflectional increment in the singular forms is *e:* instead af *e* because of lack of contrast between *e/e:* in word-initial syllables (Emeneau 1962, p. 7). Note also that Pashto has *di–* as a weak pronoun in the 2nd pers. sg. (Shafeev, p. 33).

(3) A third proposal posits a non-front vowel in PDr. for the 2nd pers. sg. and pl. owing to the peculiar alternation of *i/u* in **nim–/*num–*. This alternation is usually explained as having arisen from the rounding of *i* to *u* before a bilabial in PDr. itself. Since such a change is not common in cases even with the same environments, this alternative requires further investigation before we can set up a new vowel phoneme in Proto-Dravidian.

At the moment (1) and (2) seem to be the best possibilities. In any case, the formulation of a phonemic split in Brahui seems fairly certain judging from the way the etymologies are distributed. One residual form cannot be taken to disprove a sound change establishable on the basis of preponderantly positive data.

II

Only two of Dravidian nasals are preserved in word-initial position in Brahui **n* and **m*. As with the other Dravidian languages, PDr. **ñ–* > Br. *n–*, e. g. **ña:m* > Br. *nan* 'we'. It would be interesting to see if a similar phonemic split could be discerned in the case of PDr. **m* also. There seems to be luring evidence in support of the hypothesis, viz. PDr. **m* [front-vowel > Br. *b–*, **m* [non-front-vowel > Br. *m–*.

The *DED* has 18 Brahui entries with initial *b*– for which there are Dravidian etymologies as follows :

b [*a*	3	(*DED* 4311, 4317, 4548)
b [*a*:	4	(*DED* 4503, 4355, 4385, 4540)
b [*e*:	3	(*DED* 3627, 4179, 4552, 4569, 4552, 4565)
b [*i*	6	(*DED* 4419/4457, 4449, 4472, 4503, 4540, 4564)
b [*i*:	1	(*DED* 3440)
b [*u*	1	(*DED* 4503)
	18	

Of these, all instances of *ba*– < **wa*–; *ba*:– < **wa*: in two cases (*DED* 4355, 4385); in one case, i.e. Br. *ba:sing*(*ing*) 'to become hot' < **we:c*– (*DED* 4540) involving **e*: > *a*: ; Br. *ba:ṭagh* 'summit, top' along with *biṭ*, *buṭ* 'mound, hillock' is compared with Ta. *viṭam* 'mountain', Ko. *beṭ*, Ka. *beṭṭa*, *beṭṭu* 'big hill', Koḍ. *beṭṭa*, Tu. *beṭṭu* (*DED* 4503). There is here a cross-reference in *DED* to 4151, i. e. **me:ṭ*/**meṭṭ*– > Br. *ba:ṭagh*, *biṭ* with *e*: > *a*: ; *e* > *i* and *m* > *b* before a front vowel. This last grouping is more likely since it is exactly parallel to Br. *ba:sing*, *bising* (*DED* 4540) PDr. **we:c*–/*wec*–V–. Of the 3 instances of Br. *b* [*e*:, one seems certainly derivable from PDr. **me:y* : Ta. *me:y*, 'to graze, etc.' : Br. *bei* (=*be:i*) 'grass fit for grazing' (*DED* 4179). *DED* gives cross-references here to 4552 Ta. *ve:y* and to 4569 Ta. *vai*, etc. Of these alternatives, the basic meaning of Ta. *ve:y* (*DED* 4552), etc. seems to be 'to cover, thatch' and indirectly refers to 'thatch grass' (occurring only in Kui). No language seems to denote the notion of 'grazing' under this entry. *DED* 4569 Ta. *vai* 'grass, straw of paddy' is possible but again no language implies the notion of 'grazing'. The remaining

cases with Br. *be:*– are derivable from **we:*–. The ones with *bi*– are all traceable to PDr. **wi*– or **we*.

Br. *bil* : Ta. *vil* 'bow' (4479)

Br. *bining* 'to bear' : Ta. *vin̲a:* 'to ask, listen' (4472)

Br. *birring* 'to separate, pick out' : Ta. *ve:r̲u* (4564)

Br. *bising* to bake' : Ta. *vey*– 'be hot' (4540)

Br. *biṭing* 'to throw' : Ta. *viṭu* 'to leave' (4419) or *vil̲u* 'fall', etc. (4457)

Br. *biṟing* 'milk' : Kur. *bi:n*–, Kui *vṟi:s*– id. (3440)

Br. *biṭ*, *buṭ* : Ta. *viṭam* 'mountain' (4503) (see discussion above)

Br. *biṭ*– v.t. 'throw, throw down, let drop, shed', v. i. 'come down, descend' seems to go equally well with *DED* 3974 (a) Ka. *miḍi* 'leap, jump', *mī:ṭu* 'jumping'; Te. *miṭṭu* 'leap'; Kol *miṭ*-; Nk. *miṭṭ*- 'leap, jump'.

There is another precious etymology unfortunately missing in *DED* which supports the correspondance Ta. *me:*– : Br. *be:*– (< **me:*–), viz. *DED* 4173 : Ta. *me*: 'excellence', *me:l* above'; Ma. *me*: 'over'; Ka. *me*: 'that which is above'; Br. *be*: 'over, on'. Bray (1934, s.v.) suggests that to the same root belong *be:ṭ* 'on', *ba:ṭagh* 'submit', etc.

The foregoing discussion suggests a strong parallel between **n* > Br. *n*–/*d*– and **m* > Br. *b*–/*m*– There are nearly 25 instances cited in the *DED* for Brahui preserving **m*– before non-front vowels. There are only two instances of *m*– followed by a front vowel, viz. Br. *mili*: 'marrow' : Ta. *mu:ḷai* 'brain' (*DED* 4146); Br. *miring* : Ta. *mel̲uku* (*DED* 4169). The first of these is not a clear case since most languages point to PDr. **muḷ*-*V*– with a non-front vowel following *m*–. In that case we can posit assimilatory change **u*– > *i*– iu Brahui after *-*ai* > Br. *i*: and after *m* [front vowel > *b*–

was completed. Br. *miring* 'plaster' is the only solid exception, but even here the vowel is not uniformly **e* in the other Dravidian languages.

It is not within the scope of this paper to discuss the developments of Dravidian nasals in non-initial positions.

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(Participants in the discussion following the seminar presentation of the first version of this paper: N. Kumaraswami Raja, A. Kamatchinathan and K. Balasubramanian.)

Post-Nasal Voiceless Plosives in Telugu

A Comparative Study

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1. It is a well-known fact that among native Tamil words, there is no contrast between voiced and voiceless plosives after a nasal. We shall symbolize the sequence of a nasal plus plosive in Tamil as *NP*. The regular correspondence for this in Telugu is *NB*. (*B* here stands for a voiced plosive as against *P* which is 'phonemically' voiceless) Examples :-

Tamil		*Telugu*
toṅku 'to hang down'	:	*toṅgu* 'to recline'
añcu 'to fear'	:	*añju* 'to fear'
iraṇṭu 'two'	:	*reṇḍu* 'two'
maruntu 'medicine'	:	*mandu* 'medicine'
ampu 'arrow'	:	*ambu* 'arrow'

Kannada has the same correspondence as in Telugu. Malayalam is closer to Tamil, though it has often an *NN* sequence instead of *NP*. (Ex. *maruntu* 'medicine' : Ma. *marunnu* id.)

2. We may mention here that the Telugu *anusva:ra* (a cover symbol for the nasals before a homorganic plosive) freely alternates with *ardha:nusva:ra* ('half nasal')[1] after a long

[1] Bh. Krishnamurti (1961, p. 126, fn. 8) states: "It is likely that ardhānusvāra meant nasalization (of the preceding vowel), but there is no indication in the traditional grammars for this assumption" and I agree with him.

vowel in a mono-syllabic word and after any vowel in a poly-syllabic word.[2] In Modern Telugu, the nasal in the above environments has completely disappeared. Example :-

veluṅgu/velũgu → velugu

In Kannada there is alternation between *anusva:ra* and zero.

3. The Tamil : Telugu correspondence referred to in § 1 proves, at least tentatively, that Telugu always has a voiced plosive after a nasal. But, contrary to this we find occurrences like *anta* 'that much', *ampa–kā:ḍu* 'archer', *ampu* 'to send', *impu* 'sweetness', *ī:ta* 'date-palm', *onṭi* 'single', *kalãka* 'turbidity', *koṅki* 'hook', *tõ:ṭa* 'garden', *maḍãka* 'fold', *vẽ:ṭa* 'hunting', etc.

4. In the same way, in Kannada we find the following forms :- *eṇṭu* 'eight', *oṇṭi* 'an ear-ring worn by males', *kante* 'bundle', *kalaṅku* 'make something turbid', *ka:ṇ(i)ke* 'seeing, present', *koṅki* 'hook', *koñca, koñce* 'inferiority', *to:ṇṭa* 'garden', *maṅku* 'sluggishness', etc.

5. This involves the problem of the convertibility of "surds" and "sonants" after a nasal. According to Caldwell (1961, p. 138) this is a characteristic of the primitive Dravidian tongue. Scholars like Subrahmanya Sastri (1934) do not agree with this assumption. Sastri in his *History of grammatical theories in Tamil* provides a table which, he states, "will show that there are examples in Telugu, Kanarese, Malayalam and Tulu where voiceless consonants are found after nasals and between vowels" (pp. 55-6). The examples from Telugu include *iṅku* 'to dry up', *impu* 'sweetness' and *koṅki* 'hook'.

6. We may present below the etyma provided by Krishnamurti (1961, p. 71) for the Telugu word *boṅku*:-

boṅku to lie; n. a lie (<*poy–ṅk–); Ka. Tu. boṅku id.; Ta. Ma. pokkam falsehood (–kk– by assimilation from *–ṅk–)

[2] Krishnamurti 1961, p. 3

It has already been pointed out that Telugu *ṅg* corresponds with Tamil *ṅk* (See § 1) which may be reconstructed as **ṅk*. If we reconstruct **ṅk* for the *ṅk*(Te.) : *kk*(Ta.) correspondence also, as Krishnamurti does above, it would be very difficult to state the reflexes for the reconstructed form in the concerned languages. The correspondences involved here are two, viz. *ṅg* : *ṅk* and *ṅk* : *kk*. They have to be reconstructed differently in order to distinguish them as two different correspondences.

7. Krishnamurti (1961, p. 31) tries to explain this inconsistency by distinguishing between radical plosives and suffixal plosives. He says that the suffix consonants alone lack uniformity in Telugu and Kannada. He further states that "voicing of the suffix-stops is attributable to a period after the separation of the various cognate languages and hence independent in each of them. Tamil and Malayalam have levelled this development by voicing all stops that occur in the non-initial position except in gemination." (p. 33)

8. There seems to be inconsistency between the Tamil form *iṉpu* and Telugu *impu*, both meaning 'sweetness', which Subrahmanya Sastri provides in his table. Ta. *iṉpu* is not a genuine cognate for Te. *impu*. If at all there is any cognate for Te. *impu* it can only be Ta. *iṉippu* with the same gloss. We can reconstruct **inipp-* as the proto-form. The Tamil cognate for Te. *ampu* 'to send' (viz. *aṉuppu*) supports this. The reconstruction here is **anupp-*.

9. The Telugu dictionary *Śabdaratna:karamu* derives the word *cẽ:-tra:ḍu* 'rope used in drawing up water from a well with a small bucket or vessel' from *cẽ:du* 'to draw water from a well with a small bucket or vessel' + *tra:ḍu* 'rope'.[3] The following is the process of change:-

[3]Sitaramacharyulu 1958

cẽ:du + *tra:ḍu* > **cẽ:d-tra:ḍu* > *cẽ:-tra:ḍu*

The intermediary form **cẽ:d–tra:ḍu* consists of a (half) nasal plus double plosive. Double plosives are avoided in Telugu except when they occur immediately after a single short vowel, no matter whether this vowel is preceded by a consonant or not. The history of the word *vañka:ya* 'brinjal' is another illustration for this change. *vañka:ya* can be derived from **vañg–ka:ya* which is composed of *vañga+ka:ya*.

10. We can now assume that a three-consonant cluster like *NPP* is impossible in Telugu and it becomes *NP*. With this assumption let us reconstruct the Telugu : Tamil correspondence *NP* : *PP* as **NPP*.

**NPP*

(Te.) *NP* | (Ta.) *PP*

In Tamil, the nasal before the plosive is dropped in order to avoid this three-consonant cluster.

11. Now the Telugu : Tamil cognates *tõ:ṭa* : *to:ṭṭam*, meaning 'garden' can be reconstructed as **to:ṇṭṭam*. The root is **to:ṇṭ-* 'to dig, to draw or fetch water from a well' for which there is a regular correspondence between Telugu and Tamil (*NB* : *NP*), as expected :– Te. *tõ:ḍu* : Ta. *to:ṇṭu*. The elements added to the verbal root are a (Homorganic) Plosive + *am*. (Cf. **a:ṭ-* 'to play' : *a:ṭ–ṭ-am* 'play'). Thus the problem of post–nasal voiceless plosive has been solved by assuming it to be a reflex of geminate plosive.

12. The Kannada : Tamil correspondence for the item meaning 'eight', viz. *eṇṭu* : *eṭṭu* can now be reconstructed as **eṇ–tt–*. In Tamil, we also have the radical form *eṇ* which means 'eight'. (The Telugu word is *en–i–midi*.)

13. We can now safely reconstruct all *NP* clusters in Telugu, Kannada as **NPP* and Caldwell's theory of the convertibility of surds and sonants still holds good. Voiceless plosives do not occur in Telugu, Kannada, except as simplification of geminates. [Telugu *a:ṭa* 'play' is only a simplification of **a:ṭṭa(m)*.] In Telugu, single voiceless plosive can occur through assimilative influence of the following voiceless plosive also[4]. (Cf. Modern Telugu *atuku* 'join' < OTe. *aduku* < **atukk–*.)

14. We have dealt with two sets of correspondences between Telugu and Tamil, viz. *NB* : *NP* and *NP* : *PP*. The former has been reconstructed as **NP* and the latter as **NPP*[5]. Making use of the second correspondence, we can reconstruct the problematic Telugu items as follows :–

anta	'that much'	**anVtt–*	(cf. Ta. *aṉaittu*)
ampa–kā̃:ḍu	'archer'	**ampp–*	(cf. Ta. *appu* 'adj.')
ī̃:ta	'date–plam'	**i:ntt–*	(cf. Ta. *i:ccam* 'adj.')
oṇṭi	'single'	**onṯṯ–*	(cf. Ta. *oṟṟai*)
kalā̃ka	'turbidity'	**kalaṅkk–*	(cf. Ta. *kalakkam*)
koṅki	'hook'	**koṅkki*	(cf. Ta. *kokki*)
maḍā̃ka	'fold'	**maṭaṅkk–*	(cf. Ta. *maṭakkum*)
vẽ:ṭa	'hunting'	**ve:ṇṭṭ–*	(cf. Ta. *ve:ṭṭai*, *ve:ṭṭam*)

The Kannada items are reconstructed thus :–

oṇṭi	'an ear–ring worn by males'	**oṇṭṭ–*	(cf. Ta. *oṭṭuk–kaṭukkaṉ*)
kante	'a bundle'	**kanṯṯ–*	(cf. Ta. *kaṟṟai*)

[4]Krishnamurti 1961, p. 32

[5]We should also refer here to a third set of correspondences, viz. *PP*:*PP*, which is reconstructed as **PP*. It is worth-mentioning here that **PP* is reconstructed for this correspondence only when further evidence does not show a nasal in any one of its related forms.

kalaṅku	'make something turbid'	**kalaṅkk-*	(cf. Ta. *kalakku*)
koñce	'inferiority'	**koñccay*	(cf. Ta. *koccai*)
maṅku	'sluggishness'	**maṅkk-*	(cf. Ta. *makku*)

15. Recognizing this new correspondence, viz (Te., Ka.) *NP* : (Ta., Ma.) *PP* and reconstructing it as **NPP* has many advantages. We can now sort out Ta. *oṇṭi* 'single', *koñcam* 'little', etc. as loan-words. The former is borrowed from Te. *oṇṭi*, whose regular correspondence in Tamil should be *oṟṟ-*. It is worth-mentioning here that *oṇṭi* occurs very late in Tamil and is uncommon in the Southern dialects. The latter item *koñcam* may also be a borrowing from Te. *koñcemu*, whose regular correspondence in Tamil is *kocc-*.

16. The *DED* item 3608 has two groupings, the latter of which, viz. 3608 (b) gives the etyma for Ta. *peṭṭai* 'female of animals and birds, woman, girl'[6]. The actual Telugu cognate for this should be **peṇṭi*, which is given in 3608 (a), where it really does not belong. The form *peṇṭi* fits in with our correspondence. The other form *peṭṭa* provided in 3608(b) may be treated as a loan-word[7]. This adjustment is made possible only because of the new correspondence.

17. Krishnamurti (1961, p. 33) has refuted P. S. S. Sastri who contests Caldwell's theory of sonantization of medial stops, by stating that Sastri's examples from Telugu and Kannada "do not show anything to prove the preservation of Proto-Dravidian voiceless plosives in medial position, since all such plosives are suffix-consonants". It is good that Krishnamurti approves of Caldwell's statement ("in a modified form"). He has undoutedly realized the problem

[6]Purrow and Emeneau 1961, p. 291

[7]For the reason why we would not reconstruct **peṭṭ-* instead of **peṇṭṭ-*, see fn. 5

involved and answered it by differentiating the consonants as radical and suffixal. He assumes that the 'radical' plosive and the 'suffix' plosive behave differently at least in Telugu and Kannada. His derivation of *kk* as in Ta., Ma. *pokkam* 'falsehood' from **ṅk* ["by assimilation" (see § 6)] is not convincing. Why then did not "PDr. *toṅk-" 'to hang' (*TVB*, Etym. Index 618) get assimilated to *tokku* in Tamil? (The actual Tamil form is also *toṅku.*)

18. As Krishnamurti has pointed out, the radical plosives do not pose any problem to us. It is only the suffix plosives that "lack uniformity in the manner of voicing". I believe that the distinction of radical and suffixal phonological correspondences is unwarranted. We may, on the other hand, consider the difference between the voiced and the voiceless variety of plosives in Telugu, Kannada as a suffix itself and hence the two forms containing the voiced and voiceless plosives cannot be considered as straight cognates.

19. Some of the Tamil intransitive verbs ending in *–NPu* have corresponding transitive verbs ending in *–PPu*. (Ex: *kalaṅku,* v. i. 'to be confused' : *kalakku,* v. t. 'to confuse'). The form *naṭuṅku,* v.i. 'to shake' has a corresponding transitive in *naṭukku,* v.t. 'to shake'. It is curious that the 'logical' transitive form *naṭukku* is also used in the intransitive sense.[8] This meaning change, though rare in Tamil, points to the possibility of confusion in the grammatical categories, like transitive : intransitive, etc.

20. Another interesting example from Tamil is *toṭakku,* v.t. 'to begin', which is supposed to be the transitive of *toṭaṅku.* But in this case, the base form (i.e. *toṭaṅku*) itself happens to be a transitive verb.

[8] *naṭukku*$_1$, v.i. 'to shiver, tremble'. See *Tamil Lexicon*, 1924–39, Vol. IV

21. One more illustration from the verb morphology of Tamil language is worth-mentioning here. The verb *i:* 'to give' generally takes *nt* as its past tense marker. But there are cases where it takes *tt*, instead of *nt*.[9]

22. No wonder, then, "there is no uniformity between Telugu and Kannada in voicing : e.g. ....Te. naḍũku to tremble, Ka. naḍugu" and "sometimes Ka. has both the varieties: Te. toḍāgu to commence, Ka. toḍaku, toḍaṅku, toḍagu". What we are stressing here is that this inconsistency between Telugu : Kannada or within Kannada itself is not phonological but rather grammatical (i.e. due to confusion of suffixes).

23. Krishnamurti (1961, p. 345, Etym. Index 378) opines that the nasalization [˜] in the Telugu word *gĩ:ṭu* is "unlikely because of derivation <*ki:ṯṯ–". Here indeed lies our strong point to prove the existence of *NP : PP* correspondence between Telugu : Tamil and also the reconstruction **NPP*. Telugu *gĩ:ṭu* can now be reconstructed as **ki:nṯṯ–*, which obviously accounts for the nasalization [˜] (as found in this word occurring in the Telugu classic *Dvipadahariś–candro:pa:khya:namu*), whose very existence Krishnamurti seems to dispute with. Thus the existence of nasalization in *gĩ:ṭu* can be justified only with the help of our new phonological correspondence.

II

24. The methods employed in comparative reconstruction and in descriptive analysis are almost the same. We can now apply what we have arrived at in our comparative reconstruction to the descriptive analysis of Tamil.

25. Tamil *kalakk–* 'make something turbid', on the basis

[9] "*i:–tt–uvakku m–iṉpa m–aṟiya:r–ko ṟa:m–uṭaimai vai–tt–iḻakkum vaṉka ṉ–avar*" (Tirukkuṟaḷ 228)

of the above comparative reconstruction will be morphophonemicized as *kalaṅkk*–. (The final -*u* after a plosive is non-significant.) This is the transitive verb. The corresponding intransitive form is *kalaṅk*–. The additional item -*k* is the transitive marker. This is supported by *a:k*– 'to be, to become' : *a:kk*– 'to cause to be, to make'. On the evidence of other plosive endings, we can designate the transitive as *X*.

26. Krishnamurti (1961, p. 184) holds the same opinion in this regard, even though he phrases it differently:–

Thus in Ta., Ma., and Kuvi, etc.. an alternation between NP and PP or between B and P is associated with an alternation between transitive and intransitive. In these cases a covert allomorph of a transitive morpheme is involved which sometimes is represented by an overt alternant, viz. t or p, e.g , Kui puh– to get wet : puh–p– to make wet, but ni–ṅg– to rise : ni–k– to raise, where –ṅg–X– > –kk– (X = covert allomorph of the transitive morpheme).

27. With regard to the analysis of intransitive and transitive verbs, Krishnamurti (p. 157) says this :-

Many times an alternation of –NP/–PP is associated with an alternation between intransitive and transitive forms, etc. ... Since most of the languages have overt allomorphs for the formation of transitives but not for that of intransitives (i.e., a dental, palatal or labial stop), it may be assumed that historically NP sequences are earlier than their corresponding PP ones, when these sequences are related as intransitive and transitive.

28. Since Krishnamurti considers the *NP* sequences as "earlier than their corresponding PP ones", we can assume that the *PP* sequence is morphophonemically *NPP*. We have now an overt morpheme to indicate transitive at least at the morphophonemic level (viz. *P*), which is simply added to its corresponding intransitive base which ends in –*NP*.

Conclusion

29. From what we have seen so far, we can conclude that a three-consonant sequence like *NPP* is impossible in any of the languages under consideration. In order to avoid this, Tamil, Malayalam drop the nasal before the plosives.[10] Telugu, Kannada simplify the geminate plosive as a single voiceless plosive. The reconstruction **NPP*,[11] whether it is internal or external is of immense value in solving certain problems in the description of individual languages like Tamil, as well as in Comparative Dravidian.[12]

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(Participants in the discussion following the seminar presentation of the first version of this paper: Bh. Krishnamurti and S. V. Shanmugam.)

[10]In Tamil, three-consonant clusters are possible, if the initial member is either *y, r* or *ḻ* and the following members are homorganic plosives or nasals + plosives.

[11]When the original draft of this paper was presented in a departmental seminar, my colleague P. S. Subrahmanyam took objection to the phonological pattern of the reconstructed sequence **NPP*. I believe that the reconstructed sequence need not necessarily adhere to the phonological pattern of the language(s) under question. (It is also possible that the sequence **NPP* had a vowel in its earlier stage either immediately after the nasal or between the plosives.)

[12]For the extensive use of this reconstruction in Draividian morphology, see Kumaraswami Raja (f.)

Gowda Kannada and Standard Kannada

A Synchronic Comparison

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Gowda Kannada (GK) is a social dialect spoken by Gowdas of South Kanara and Coorg districts of Mysore State, in their homes. Standard Kannada (SK) is a common dialect for social groups, which is mainly the written standard form of Kannada.

0.1. GK has 14 vowels (9 short and 5 long) and 22 consonants as distinct phonemes. Four vowels and two consonants, viz. *ñ* and *ṅ* are not distinct in SK.[1] GK differs from SK in using only the unaspirated stops and one sibilant instead of three as in SK. The common features shared by GK and SK (which are evolutionary in both) are (1) contrast between voiceless and voiced stops (2) merging of *ḻ* and *ṟ* with *ḷ* and *r*, respectively and (3) having *h-* as a distinct phoneme.

0.2. The extra vowels found in GK are the results of

[1]GK vowels: *i, ɨ, u, e, ə, o, ɛ, ɔ, a, i:, u:, e:, o:, a:*

SK vowels: *i, u, e, o, a, i:, u:, e:, o:, a:*

GK consonants: *p, t, ṭ, c, k, b, d, ḍ, j, g, m, n, ṇ, ñ, ṅ, w, y, s, h, l, ḷ, r*

SK consonants: *p, ph, t, th, ṭ, ṭh, c, ch, k, kh, b, bh, d, dh, ḍ, ḍh, j, jh, g, gh, m, n, ṇ, (ñ), v, y, s, ś, ṣ, h, l, ḷ, r*

'sound changes' that have taken place in the course of its evolution. There are two sets of vowel correspondences in certain environments, which makes it necessary to set up both pairs as distinct phonemes.[2] Unless we make a diachronic study of these, we may not be able to state how these pairs of correspondences occur. But, the aim of the present paper is not that, and such a study shall be undertaken at a later stage Here, I have made an attempt to give a synchronic comparison of GK and SK.

0.3. As an experiment, I have tried to give certain conditions for the so called 'changes in vowels'. By the term 'changes' I do not presuppose that 'X' is the original, if a statement is made to the effect that 'X' becomes 'Y' in the environment 'E'. It would also be possible that, both 'X' and 'Y' are two representatives or descendants of 'S', a source language, now 'alive' or 'dead'. Out of a sample of 84 words which are shared by both SK and GK, percentages have been worked out for individual vowel sequences and also for types of vowel sequences.

0.4. There are two types of indices, which I call 1. Horizontal Index (H-I), based on the positions of the tongue, like Front (F), Central (C), Back (B) and 2. Vertical Index (V-I) based on the grades of tongue-height as High (H), Mid (M) and Low (L). It has to be assumed that if a comparatively low reading (or complete absence) of an index is noticed, for a given individual sequence or types of vowel sequences, then the SK word is expected to undergo some changes. The overall pattern of the vowel changes is assimilatory -- moving from the direction of relatively lower index to relatively higher index either in H-I, or in V-I, or sometimes involving both.

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[2] Emeneau, 1965, pp. 2–3

The following are the tables of indices:—

Table 1

A.	Horizontal index		(Types of sequences of vowels)	
1.	(F—C)[3]	/ C—F	: 18.72	%
2.	(C—B)	/ B—C	: 8.46	%
3	(F—B)	/ B—F	: 8.46	%
4.	F—F		: 11.28	%
5.	C—C		: 16.98	%
6.	B—B		: 25.36	%
B	Vertical index		(Types of sequences of vowels)	
7.	H—M	/ M—H[4]	: 14.10	%
8.	H—L	/ L—H	: 11.27	%
9.	L—M	/ M—L	: 15.50	%
10.	H—H		: 18.81	%
11	M—M		: 21.13	%
12.	L—L		: 14.08	%

Table 2

Index of individual sequences of vowels

1.	L—M	*a – e*	: 9.86	%
		a: – e	: 1.41	%
2.	M—L	*o – a*	: 2.82	%
		o: – a	: 1.41	%
3.	M—H	*e – i*	: 1.41	%
		o – i	: 1.41	%
		o – u	: 4.23	%
		o: – u	: 5.64	%
4	H—M	*i – e*	: 1.41	%

[3]Sequences not found in the sample are bracketted. The example is taken at random.

[4]Both the types are totalled.

5.	H—H	*i - i*	:	2.82 %
		u - u	:	8.45 %
		u: - u	:	7.04 %
6.	M—M	*e - e*	:	5.64 %
		o - e	:	7.04 %
		o: - e	:	8.45 %
7.	L—L	*a: - a*	:	14.08 %

0.5. There are changes other than those involving the above indices. They are (1) shortening the word length, (2) stretching the word length and (3) some fossilised forms.[5] (The last one might have come to GK from sources other than SK also.) Though emphasis is laid mainly on the phonological traits (that too in vowel section), some of the morphological and lexical features are also dealt with, as a means to understand the position of GK better.

1. Syllabic Features

1.1. The maximum number of syllables in GK word is four and words with two syllables occur more frequently. Hence, some of the words of SK having three or more syllables are reduced into words having two syllables. The following is the table of frequencies of syllabic quantity of GK and SK words. 72 words, where the changes have occurred are taken as a sample for this calculation.

Table 3

Syllabic quantity of words in GK and SK

		GK	SK
Di-syllabic words	....	51.39 %	38.88 %
Tri-syllabic words	....	40.28 %	47.50 %
Tetra-syllabic words	....	6.94 %	9.72 %
Penta-syllabic words	....	1.39 %	4.16 %

[5]These are called by Sturtevant, 1960, as "residual forms" (103.1).

1.2. All the extra phonemes occur in non-initial positions only. The largest number of vowel changes take place in the second syllable. The following is the table of frequency of the changes noticed in different syllabic positions:

Table 4

Vowels	Syllables		
	1st	2nd	3rd
a	20.00 %	25.71 %	1.43 %
a:	2.86 %	—	—
i	7.14 %	21 43 %	—
i:	1.43 %	1.43 %	—
u	2.86 %	7.14 %	—
e	4.29 %	1.43 %	—
e:	1.43 %	—	—

2. *Vowel Correspondences*

2.1. As mentioned in § 0.5. some of the words in GK do not conform with any of the set criterion and are treated at this level as either 'fossilised forms' or simply unexplainable ones. Hence they are listed prior to the others.

2.1.1. *u* ⇄ *i*

Exx: *to:ḍu* : *co:ḍi* 'water canal' (*DED* 2921). Only Ma., Ka. and Koḍ. have this word, for which Koḍ. has the final vowel ī. Perhaps this is derived from *ko:ḍi* (*DED* 1821) 'passage to carry off the excess of water, outlet of a tank'. In that case the initial consonant *k*– raises the problem of becoming *c*– before *o*, the back vowel.

huccu : *hucci*. The etyma in *DED* 3407 indicate that the radical vowel in the proto-form is a front vowel. In that case as F-B does not cccur in the index, B-F is permitted; therefore, the change must have taken place.

2.1.2 *u* ⇌ *a*

musu : *mucca* 'black monkey'. *mocca* occurs in Ma. (*DED* 4020). *musuva* is another alternant form in Ka. Two explanations are possible: 1. the source is Ma., 2. S (n) > S(n-1). (cf. § 2.3)

2.1.3. *i* ⇌ *i:*

Ex: *giḷi* : *gi:ṇa*. In *DED* 1318 long vowel is not seen in any of the languages for this word, though *k–c*, *ḷ–ṇ* alternations occur. No explanation is possible for this at present.

2.2. *Fossilised forms*

i ⇌ *e*	Exx:	*ili*	: *eli*[6]	'rat'
		kivi	: *kebi*	'ears'
u ⇌ o	Ex:	*kuṇisu*	: *koṇsɨ*	'cause to play'
i ⇌ u	Ex:	*giḍḍa*	: *guḍḍu*	'short'

These do not conform with any of the indexical criterion and therefore, are called 'fossilised forms' in GK, which perhaps corresponds to Pre–Dr. feature.

2.3. *Shortening of word–length*

2.3.1. S (n) ⇌ S (n–1)

(S–syllables, n–number of syllables in a word)

(1) SK *a* in second syllable corresponds to ϕ in GK.

Exx:	*kaḷasige*	: *kaḷsige*	'a measure of 14 seers'
	oḍalu	: *oḍḷɨ*	'body'
	orasu	: *orsɨ*	'rub'
	baṭṭalu	: *baṭḷɨ*	'plate'
	davaḍe	: *davḍe*	'jaw'
	to:raṇa	; *to:rṇe*	'festoon'

[6]*eli* 'rat' and *kebi* 'ear' are found in Tulu and since the resemblance in form and meaning is exact, it can be taken as a case of borrowing from Tulu. But the word *koṇsɨ* does not have any correspondence in Tulu and so the simple explanation as 'borrow ing' is not completelv agreeable to this question.

a:raṇe	:	*a:rṇe*	'a kind of lizard'
a:rane	:	*a:rne*	'sixth'
e:ḷane	:	*e:ḷne*	'seventh'
de:varu	:	*de:vru*	'god'
koḍapa:ṇa	:	*koḍpaṇa*	'pot'

(2) SK –*i*– in second syllable corresponds to ϕ in GK.

Exx :

kaḷisu	:	*kəḷsɨ*	'send'
kaḍisu	:	*kəḍsɨ*	'cause to plant'
kuṇisu	:	*koṇsɨ*	'cause to play'
horisu	:	*horsɨ*	'cause to carry a load on head'
ka:ṇisu	:	*ka:ṇsɨ*	'cause to show'
to:risu	:	*ro:rsɨ*	'cause to see'
biḍisu	:	*buḍsɨ*	'cause to release'
ha:ḍisu	:	*ha:ḍsɨ*	'cause to sing'
pa:lisu	:	*pa:lsɨ*	'to protect'
ma:ḍisu	:	*ma:ḍsɨ*	'cause to do'
uḍisu	:	*uḍsɨ*	'cause to wear'

2.3.2. S (n) $\rightleftharpoons$ S (n–2) + length.

Length does not occur in case the vowel is –*u*, even though there is syllabic loss.

(1) SK *i* of the second syllable corresponds to *i:* in GK.

Exx :

kuḍiyuvudu	:	*kuḍi:du*	'drinking'
ugiyuvudu	:	*ugi:du*	'spitting'
naḍiyuvudu	:	*naḍi:du*	'walking'
midiyuvudu	:	*miji:du*	'pounding'
bagiyuvudu	:	*bogi:du*	'digging'
kaḍiyuvudu	:	*kəḍi:du*	'cutting'
hiḍiyuvudu	:	*hiḍi:du*	'holding'
hariyuvudu	:	*hari:du*	'tearing off'

(2) SK *e* of the second syllable corresponds to *i:* in GK, by the loss of 2 syllables. Exx :

oḍeyuvudu	:	*oḍi:du*	'breaking'
hoḍeyuvudu	:	*hoḍi:du*	'beating'
tegeyuvudu	:	*tegi:du*	'taking'

(The root vowel in the second syllable might be *i* for the GK forms and since SK has both the vowels it is possible that GK has the source of *–i* words).

2.4. *Stretching of word-length*

S(n) ⇄ S(n+1)

The following is the only example available for this change The possibility of borrowing from Tulu is more, since the word closely resembles the Tulu word in phonological features. Besides, this is a cultural word and belongs to the custom of Tulu Nad where, Bali is worshipped for 3 days in a year during Deepavali.

SK *bali:ndra* : Tu. *baliyandre* : GK *boliyəndra*

2.5. Long vowels of SK correspond to short vowels in GK in the following examples:

(1)	*a: – a*	Ex :	*ka:ge*	:	*kakke*	'crow'
(1b.)	*a: – a*	Ex :	*ha:gala*	:	*hagala*	'bitter gourd'
(2)	*i: – i*	Ex :	*mi:yu*	:	*miyi* (<*miyyi*)	'bathe'
(3)	*e: – e*	Ex :	*e:ḷu*	:	*eddiri*	'get up'

In (1 b.) even when there is a single stop, the long vowel *a:* of SK corresponds to *a* which is unexplainable for the present.

2.6. *Changes confirming V-I and H-I*

2.6.1. There are three types of changes, (1) based on V-I, (2) based on H-I and (3) based on V-I & H-I both.

2.6 1.1. The following are the changes which can be explained on the basis of V-I only.

(1) L—H ⇌ M—H

a. *a* ⇌ *o*

Exx :	*masi*	:	*mosi*	'charcoal'
	matti	:	*motti*	'N. of a fish, N. of a tree'
	baḍi	:	*boḍi*	'beat'
	bagi	:	*bogi*	'dig'
	maṇi	:	*moṇi*	'bead, bell'
	maḍi	:	*moḍi*	'clean'
	mari	:	*mori*	'pup'
	paṭṭi	:	*poṭṭi*	'list'
	baḷiva:ḍu	:	*boḷiya:ḍɨ*	'offering to god'
	baggu	:	*boggɨ*	'bend'
	maduve	:	*modɨve*	'marriage'
	baduku	:	*bodɨkɨ*	'life'
	maddu	:	*moddɨ*	'medicine'
	mayda:nu	:	*moyda:nɨ*	'meadow'
	maruka	:	*morka*	'uneasiness in stomach'

b. *a* ⇌ *e*

Exx :	*saṭṭuga*	:	*seṭiga*	'laddle'
	may	:	*mey*	'body'

c. *a* ⇌ *ə*

Exx :	*kaḍi*	:	*kəḍi*	'cut'
	naṭṭi	:	*nəṭṭi*	'vegetable garden'
	gaḍi	:	*gəḍi*	'boundary'
	gaṭṭi	:	*gəṭṭi*	'tight'
	kaṇi	:	*kəṇi*	'canal'
	kaṇḍi	:	*kəṇḍi*	'hole'
	sarige	:	*sərige*	'wire'
	katti	:	*kətti*	'sickle'
	kapi	:	*kəpi*	'monkey'
	śani	:	*səni*	'Saturn, ill-luck'
	kaḍike	:	*kəḍike*	'a basket for storing grain'

(2) H—M ⇄ M—M

Ex : *be:sige* : *be:sege* 'N. of a month'

(3) L—M ⇄ M—M

Ex : *nage* : *nege* 'laughter'

(4) L—L ⇄ M—L

Ex : *alasaṇḍe* : *elsaṇḍe* 'green pulse'

(5) H—L ⇄ M—L

Exx : *me:lina* : *me:lena* 'of above'
keḷagina : *keḷegena* 'of below'

(6) L—H ⇄ L—M

Exx : *ba:yi* : *ba:ye* 'mouth'
taṅgi : *taṅge* 'younger sister'
na:yi : *nã:yẽ* 'dog'

(7) L—H ⇄ M—H

Ex : *kaḍavu* : *kaḍəvu* 'passage'

2.6.1.2. The following are the examples where the changes are explainable by H-I only.

(1) B—F ⇄ F—F

Exx : *puḷḷi* : *piḷḷi* 'grand child'
nuji : *niji* 'tooth gum'

(2) F—B ⇄ F—F

Ex : *kiccu* : *kicci* 'fire'

(3) Two types of changes are involved:

a. F—B ⇄ F—C   b. C—B ⇄ C—C

Exx : *eduru* : *edɨru** *edɨru** : *edɨrɨ* 'front'
kuṇisu : *koṇɨsu** *koṇɨsu** : *koṇsɨ* 'cause to play'
beralu : *berɨlu** *berɨlu** : *berlɨ* 'fingers'
bennu : *bennɨ*
ka:lu : *ka:lɨ* 'leg'
hallu : *hallɨ* 'teeth'

(4) F—C ⇄ C—C

Ex : *ma:vina* : *ma:yana* 'mango'

(5) C—F ⇌ C—C

Ex : *harive* : *harɨve* 'greens'
na:dini : *na:dɨni* 'younger sister-in-law'

(6) F—B ⇌ C—C

Ex : *tekkoḷḷuvudu* : *takambodu* 'taking'

(7) F—B ⇌ F—C ⇌ C—C

Exx : *kantisu* : *kəntisi** *kəntɨsɨ* 'cause to sink'
baggisu : *boggisi** *boggɨsɨ* 'cause to bend'
taggisu : *təggisi** *təggɨsɨ* 'cause to go down'
oppisu : *oppisi** *oppɨsɨ* 'cause to agree'
ne:gilu : *ne:gili** *ne:gɨlɨ* 'plough'
ba:gilu : *ba:gili** *ba:gɨlɨ* 'door'
bidiru : *bediri** *bedɨrɨ* 'bamboo'

(8) F—B ⇌ B—B

Exx : *biḷupu* : *boḷpu*[7] 'light', 'shining'
cembu : *combu* 'pot'
ceppu : *coppu* 'coconut fibre'
ce:ḷu : *co:ḷu* (as in *komba co:ḷu*) 'scorpion'

(9) B—C ⇌ B—B

Exx : *mucculạ* : *mucculu* 'lid'
santo:ṣa : *santo:su* 'happiness'

2.6.1.3. The following are the examples where the changes in the vowels can be explained both by V-I & H-I together.

(1 a.) C—B ⇌ C—C (1 b.) L—H ⇌ H—H

Exx : *okkalu* : *okkali** *okkali** : *okkɨlɨ* 'tenant'
kesaru : *kesari** *kesari** : *kesɨrɨ* 'mud'
hesaru : *hesari** *hesari** : *hesɨrɨ* 'name'
haḍagu : *haḍagi** *haḍagi** : *haḍɨgɨ* 'ship'

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[7] *i* > *o* instead of *u* suggests that –*i*– is not the root vowel for the GK form *boḷpu*. *o* being a mid-vowel, the word *boḷpu* might have been derived from **beḷpu*.

oraṭu	: *oranṭi**	*oranṭi**	:	*orinṭi*	'rough'
keḍagu	: *keḍagi**	*keḍagi**	:	*keḍigi*	'make fall'
maḍagu	: *moḍagi**	*moḍagi**	:	*moḍigi*	'keep'
manassu	: *manasi**	*manasi**	:	*manisi*	'mind'
hagalu	: *hagali**	*hagali**	:	*hagili*	'day time'
nettaru	: *nettari**	*nettari**	:	*nettiri*	'blood'
ganḍasu	: *ganḍasi**	*ganḍasi**	:	*gənḍisi*	'man'
heṅgasu	: *heṅgasi**	*heṅgasi**	:	*heṅgisi*	'female'

(1 c.) C—B ⇄ C—C (1 d.) L—H ⇄ M—H

Exx :	*mugalu*	: *mugali**	*mugali**	:	*mugəli*	'clouds'
	kakku	: *kakki**	*kakki**	:	*kəkki*	'vomit'
	naḍu	: *naḍi**	*naḍi**	:	*nəḍi*	'plant'
	kaḷisu	: *kaḷisi**	*kaḷisi**	:	*kəḷsi*	'cause to send'
	danḍu	: *danḍi**	*danḍi**	:	*dənḍi*	'pith'
	kantu	: *kanti**	*kanti**	:	*kənti*	'sink'
	ganṭu	: *ganṭi**	*ganṭi**	:	*gənṭi*	'knot'
	karuḷu	: *karli**	*karli**	:	*kərli*	'intes–tine'
	kaṇṇu	: *kaṇṇi**	*kaṇṇi**	:	*kəṇṇi*	'eye'
	ganḍu	: *ganḍi**	*ganḍi**	:	*gənḍi*	'male'
	danṭu	: *danṭi**	*danṭi**	:	*dənṭi*	'twig'
	kallu	: *kalli**	*kalli**	:	*kəlli*	'stone'
	taggu	: *taggi**	*taggi**	:	*təggi*	'come down'
	kadiru	: *kadiri**	*kadiri**	:	*kədiri*	'stalk of grain'
	taṭṭu	: *taṭṭi**	*taṭṭi**	:	*təṭṭi*	'beat'

3. *The vowels occurring in identical environments in GK*

1. *a* — *ə*

Ex : *kaḍi* 'grind' *kəḍi* 'cut'

2.	*i*		*ɨ*	
Ex :	*ma:ḍi*	'Do!'(2nd.hon).	*ma:ḍɨ*	'roof'
3.	*u*		*ʉ*	
Ex :	*koṭṭu*	'spade'	*koṭṭɨ*	'having given'
4.	*e*		*ɛ*	
Ex:	*herɨ*	'to give birth'	*hɛru*	'flux put to milk for curdling'
5.	*o*		*ɔ*	
Exx:	*morì*	'young of an animal'	*mɔri*	'bark'
	hoḍi	'powder'	*hɔḍi*	'beat'

4. Consonants

1. Nasals occurring in preconsonantal positions after long vowels or after short vowels in disyllabic words are retained in some GK words.[8]

Exx:	*ta:gu*	*ta:ṅgɨ*	'to strike'
	to:ḍu	*to:ṇḍɨ*	'to burrow, dig'
	be:ge	*be:ṅke*	'hotness'
	ha:ge	*ha:ṅge*	'in that manner'
	hi:ge	*hi:ṅge*	'in this manner'
	he:ge	*he:ṅge*	'in what manner'
	beḷḷage	*beḷḷaṅge*	'being white'
	teḷḷage	*teḷḷaṅge*	'being thin'
	mettage	*mettaṅge*	'softly'
	rekke	*reṅke*	'wings'
	oraṭu	*oriṇṭi*	'rough'
	aḍagu	*aḍiṅgɨ*	'to hide'

2. Nasals are dropped in both GK aud SK in the following words:

Exx:	*to:ṭa* (< **to:ṇṭa*)	*to:ṭa*	'garden'
	da:ṭu (< **da:ṇṭu*)	*da:ṭɨ*	'to cross'
	nu:ku (< **nu:ṅku*)	*nu:ku*	'to push'

[8]Keśiraja's *Śabdamaṇidarpaṇa*, S 46.

3. GK has *–l* ending words, whereas SK has *–ḷ* ending.[9]

Exx:	*beraḷu*	*bɛrlɨ*	'finger'
	oraḷu	*orlɨ*	'mortar'
	araḷu	*arlɨ*	'to bloom'

4. GK has *–l* ending whereas SK has retained the *-ḷ* ending.

Exx:	*karuḷu*	*kərlɨ*	'intestine'
	uruḷu	*urlɨ*	'loop'
	maruḷu	*morlɨ*	'lunacy, foolish,stupid'
	iruḷu	*irlɨ*	'night'
	haraḷu	*harlɨ*	'caster seed'

5. SK *–g–* corresponds to *–k–* in GK.

Exx:	*na:lage*	*na:like*	'tongue'
	talegaṭṭu	*talekaṭṭa*	'knot of the hairs'
	ka:ge	*kakke*	'crow'

6. SK dental stops and sibilants correspond to palatal affricates in GK.

Exx:	i.	*d–j*	*da:ḍe*	*ja:ḍe*	'molar tooth'
	ii.	*t–c*	*to:ḍu*[10]	*co:ḍi*	'small canal'
			tagaṇe	*cagaṇe*	'bug'
	iii.	*s–c*	*maḍisu*	*moḍcu*	'to fold'
	vi.	*s–cc*	*musu*[11]	*mucca*	'black monkey'
	v.	*s–j*	*osaru*	*ujirɨ*	'spring'

7. SK *c* corresponds to *j* in GK.

Ex:	*civuṭu*	*jigiṇṭɨ*	'to pinch'

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[9]Here the *–l* ending words are the older forms. There are also instances where the dental *–l* after retroflex stops (environment resulting due to the loss of penultimate vowels) becomes retroflex lateral. Exx:

oḍalu	:	*oḍḷɨ*	'body'
kaḍalu	:	*kaḍḷɨ*	'sea'
baṭṭalu	:	*baṭḷɨ*	'plate'

[10]The GK form might have come from *ko:ḍi* (§ 2.1.1.).

[11]See § 2.1.2.

8. *kṣ* of SK corresponds to *c* in GK.

Ex: *kṣavra* *covra* 'shave, haircut'

9. SK *b* corresponds to *g* in GK.

Ex. *budhava:ra* *guduva:ra* 'Wednesday'

10. SK *s* corresponds to *d* in GK.

Ex: *su:ji* *du:ji* 'needle'

11. SK *d* and *m* correspond to *ϕ* in GK.

Exx: *d* – *ϕ* *a:dityava:ra* *aytva:ra* 'Sunday'
m – *ϕ* *ma:msa* *ma:sa* 'flesh'

12. *-mr-* of SK correspond to *-mbr-* in GK.

Ex: *ta:mra* *ta:mbra* 'copper'

13. Geminate stops of SK correspond to single stops and geminated bilabial nasals to semivowels in GK.

Exx : i. *kk* – *k* *cikkamma* *cikawa* 'mother's y. sister', 'aunt'
ii. *ṭṭ* – *ṭ* *peṭṭige* *peṭige* 'box'[12]
iii. *ḍḍ* – *ḍ* *doḍḍappa* *doḍapa* 'father's elder brother'
iv. *pp* – *p* *doḍḍappa* *doḍapa* ,,
v. *mm* – *w* *doḍḍamma* *doḍawa* 'mother's elder sister', 'aunt'

5. *Morphological features*

-nu, sg. marker in 1st and 2nd person pronouns of SK corresponds to *ϕ* in GK.

na:nu *na:* 'I'
ni:nu *ni:* 'you'

2. *-ḷu* of pl. suffix *-kaḷu* as well as fem. gen. suffix of SK corresponds to *ϕ* in GK.

magaḷu *maga*[13] 'daughter'
makkaḷu *makka* 'children'

[12] *peṭṭige* and *peṭige* are contrasting pairs in GK; *peṭṭige* means 'for beating' and *peṭige* 'box'.

[13] For details, see Kushalappa Gowda, 1968

3. In SK, masc. fem. neut. (sg.) and superior (pl.) and inferior (pl.) are distinguished, but in GK only masc., non-masc. (sg.) and common plural are distinguished.

Exx:	Masc.	*avanu*	*ā̃vā̃*	'he'
	Fem.	*avaḷu*	—	
	Neut.	*adu*	*adɨ*	'she', 'it'
	Sup. pl.	*avaru*	*avu*	'they'
	Inf. pl.	*avu(gaḷu)*		

4. In SK, there is number, gender and person concordance between the subject and predicate. In GK, the (number) and persons only agree with the subject of the sentence and only one form of finite verb is used for all the genders.

Exx:	*na:nu bande*	*na: bande*	'I came'
	na:vu bandevu	*na:vu bande*	'we came'
	ni:nu bandi	*ni: banda*	'you came'
	ni:vu bandiri	*ni:vu bandəri*	,, (pl.)
	avanu bandanu	*ā̃vā̃ ba:tɨ*	'he came'
	avaḷu bandaḷu / *adu banditu*	*adɨ ba:tɨ*	'she/it came'
	avaru bandaru / *avu(gaḷu) bandavu*	*avu bandɔ*	'they came'

5. *Cases*

1. In both SK & GK, there is no overt marker for nominative.

2. In both SK & GK abl. and instr. are homophonous.[14]

3. In SK, acc. and gen. are distinct, having separate markers. In GK they are homophonous.

4. Locative can occur with nouns belonging to the masc. class also in SK. In GK the case suffix is added only to neuter nouns.

[14] The instrumental/ablative form can be used as a comparative case also in GK, but in SK it is not so.

5. 1st and 2nd person pronouns have *nam–* and *nim–* as oblique forms in SK, but GK has two sets of oblique stems: *na.v*- and *ni:v–* for dative and *nam–* and *nim–* for other cases. (This '-*v*– obique form' with short vowel is noticed in a 16th cent. work *Bharate:sha Veibhava.*)

Exx:

GK

Nom.	Acc.	Instr./Abl.	Dat.	Gen.	Loc.
1st pn.					
na:	*nanna*	*nannanda*	*nañgε*	*nanna*	
na:vu	*namma*	*nammanda*	*na:vgε*	*namma*	–
2nd pn.					
ni:	*ninna*	*ninnanda*	*niñgε*	*ninna*	
ni:vu	*nimma*	*nimmanda*	*ni:vgε*	*nimma*	–
3rd M.					
ãvã	*avana*	*avanda*	*avañgε*	*avana*	–
Non-M.					
adi	*adara*	*adarnda*	*adikε*	*adara*	–
Com. Pl.					
avu	*avara*	*avarnda*	*avkε*	*avara*	–

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SK

Nom.	Acc.	Instr./Abl.	Dat.	Gen.	Loc.
1st.					
na:nu	*nannannu*	*nanninda*	*nanage*	*nanna*	*nannalli*
na:vu	*nammannu*	*namminda*	*namage*	*namma*	*nammalli*
2nd.					
ni:nu	*ninnannu*	*ninninda*	*ninage*	*ninna*	*ninnalli*
ni:vu	*nimmannu*	*nimminda*	*nimage*	*nimma*	*nimmalli*
3rd M.					
avanu	*avanannu*	*avaninda*	*avanige*	*avana*	*avanalli*
F.					
avaḷu	*avaḷannu*	*avaḷinda*	*avaḷige*	*avaḷa*	*avaḷalli*

N.

adu *adannu* *adarinda* *adakke* *adara* *adaralli*

Sup. Pl.

avaru *avarannu* *avarinda* *avarige* *avara* *avaralli*

Inf. Pl.

avu *avugaḷannu* *avugaḷinda* *avugaḷige* *avugaḷa* *avugaḷalli*

6. *Lexical items*

The following is a list of some words which GK shares occasionally either with Tulu or SK or has as its own.

1. *Words relating to house-hold articles and things*

SK	GK	TU	
	kuḍpu	*kuḍpu**[15]	'a small basket'
huruḷi	*kuḍu*	*kuḍu* (1790)	'horse-gram' (*koḷ*)
	kurcaṭɛ	*gaddaga**	'a small earthen plate'
pada:rtha	*gəypu*	*kajipu*	'curry' (1171)
togari	*ciberi*	*cibari*	'dhall' (2757-*togari*)
	ceṭṭɛ(1910?)	*pallaye*	'earthen plate' (2308)
	gumba	*gumbo*	'earthen pot'
	aḍigera	*aḍyara**	'a pot'
e:ta	*conṭɛ*	*coṭṭɛ**	'moat' (2327?)
hesaru	*padiñji*	*padeñji**	'green grams'
bai hullu	*biḷgili*	*bay**	'hay'
	menṭɛ	*monṭɛ*	'bamboo bell'
	marcaṭɛ		'bamboo bell'
	margili	*mara:yi*	'a small vessel' (3859)
	moserivɛ	*majita kunṭu*	'cloth for cleaning utensils of cooking'
saṭṭuga	*seḍɛ***[16]	*kayli**	'laddle, spoon'
	*huggɛ**	*uṇpu*	'cooked rice' (516)

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[15] *indicates the Tulu words which are not recorded in *DED*. Numbers given in parentheses refer to *DED* items.

[16] **indicates the words not recorded so far in any dictionary.

2. *Words relating to animals*

SK	GK	TU	
aḷilu	*kuṇḍata*	*kuṇḍate**	'squirrel'
maṅga	*kure*	*maṅge*	'monkey' (3777)
je:ḍara-huḷu	*go:liṅa*** *baleṅga:ra*	*baleṅga:re*	'spider' (4326*)
nari	*kudka*	*kudke*	'fox' (1357)

3. *Words relating to human relationships*

magu (ku:su) (1554)	*ku:su*	*ba:lɛ*	'child'
gaṇḍasaru	*gəṇmaka*	*a:ṇjovu*	'males', 'men' (342*)
huḍugi	*gu:ḍɛ***	*poṇṇu*	'girl, maiden' (3608)
ajji	*uggava*	*uggaba**	'grand mother'
maga	*maṅṅa*	*mage*	'son' (3768)
magaḷu	*maga*	*magaḷi*	'daughter' (3768)
	naṇka	*naṇke**	'brother-in-law' (Y)
huḍuga	*hayda***	*a:ṇi* (342)	'boy'
heṅgasaru	*heṇmaka*	*poṇjovu*	'women' (3608)

4. *Physiological words*

	kənigunḍu	*kanigunḍu**	'heart of animal'
ka:ḷaca	*kəriyaḍa*	*kariyaṭo**	'spleen'
	kəyimpɛ	*kaypɛ*	'bile duct' (1047)
	kəṇṇibe:ḷɛ		'apple of the eye'
	cinnapodikɛ	*cinnapodikɛ**	'stomach of birds'

SK	GK	TU	
kiruna:lige	*narana:likɛ*	*narana:lage**	'uvula'
	neybalɛ	*neybalɛ**	'fat'
	pa:si	*pa:si*	'membrane' (3161*?)
	pe:nɨguṇḍi	*pe:nɨguṇḍi*	'back of the head' (3643*)
	poṭṭu kennɛ	*poṭṭu kenni**	'temples'
	ba:riyelu	*ba:riyelu**	'ribs'
	be:ṭɛ hallɨ	*bo:ṭepaṟu**	
kiruhoṭṭe	*madahoṭṭɛ*	*bañjita kara*	'lower abdomen'
	soriṅga	*soriṅko*	'windpipe'
śva:sako:śa	*sorɛ*	*surɛ**	'lungs'
	hebbaṭɛ	*pervoṭɛ*	'stomach'

5. *Some verbs*

bi:sa:ḍu	*iḍɨ*	*aḍakɨ*	'to throw'
ebbisu	*eḷkisɨ*	*lakka:pu*	'to cause to rise'
civuṭu	*nuḷḷu***	*kiṇkɨ*	'to pinch'
aḷu	*morḍɨ***	*areddɨ*	'to cry'
ettu	*ne:cɨ*	*de:rɨ*	'to lift'

6. *Week day*

guruva:ra	*be:stwa:ra*	*guruva:rɔ*	'Thursday'

7. *Other words*

bila	*ma:ṭɛ**	*kuḍɛ*	'hole'
	poḍpu	*paḍpu*	'meadow'

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The Central Dravidian Languages

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I. Shared innovations in Central Dravidian

0. The Dravidian languages Telugu, Goṇḍi, Koṇḍa, Kui, Kuvi, Kolami, Naiki, Parji, Gadaba and two more recently discovered languages Pengo and Manḍa, all spoken in parts of Andhra Pradesh, Orissa, Maharashtra and Madhya Pradesh (i.e. Central India) have been classified as the Central Dravidian group in contrast to the South and the North Dravidian groups. The characteristic features of the latter two groups–some mentioned by earlier writers and some discovered for the first time – have been collected by Professor M.B. Emeneau in his works of 1967 and 1962 (chapter V) respectively. In the present paper an attempt is made to collect and present all the important characteristic features of the languages that belong to the Central Dravidian subgroup.

Before going into the details it should be pointed out here that the data presented below allow us to assume two clear-cut sub-subgroupings within the Central Dravidian group of languages. One is the Kolami–Parji sub-subgroup consisting of the four languages Kolami, Naiki, Parji and Gadaba

(Ollari and Salur dialects).[1] The remaining languages, that is, Telugu, Goṇḍi, Konḍa, Kui and Kuvi constitute the second sub-subgroup.[2] We shall return to this subject and discuss it in detail after first presenting the characteristic features of all the languages of the Central Dravidian group that distinguish them from those of the South and the North Dravidian groups.

1. All the Central Dravidian languages with the exception of Telugu are unified in the matter of gender and number distinction. All these languages have the distinction – masculine *versus* non-masculine (the latter consisting of the feminine and the non-human categories) both in the singular and the plural. Telugu, on the other hand, agrees with Kuṛux and Malto of the North Dravidian group in having the distinction – masculine *versus* non-masculine in the singular. In the plural of all these three languages, however, the feminine is grouped with the masculine as in the South Dravidian languages. Since Telugu is not geographically contiguous to Kuṛux-Malto and since it does not share any other innovation

[1]This grouping was first suggested by T. Burrow and S. Bhattacharya, 1953 (p. xi) and the evidence from phonology and certain parts of morphology was presented by Emeneau, 1955 (chapter X).

I am indebted to Professor M, B. Emeneau for constructive criticism of an earlier version of this article. (This article was originally submitted to the editor of *JAOS* and will appear in *JAOS* 89.)

[2]Professor Bh. Krishnamurti, 1961 (chapter IV) on the basis of a comparative study of the phonology and certain parts of the morphology of Telugu first established that it belongs to the Central Dravidian group with close connection with the Goṇḍi–Konḍa–Kui–Kuvi subgroup. Earlier, Burrow and Bhattacharya (*ibid.*) have already observed, "different as they now look, there are also many signs of special connection between Goṇḍi–Konḍa and Kui–Kuwi......"

with the latter languages, the system of these three languages must be attributed to Proto-Dravidian. Furthermore, it is easier to explain the development of the gender systems of the remaining Dravidian languages by assuming the system of Telugu and Kuṛux–Malto to be the original rather than vice versa.[3] Thus it is possible to say that the South Dravidian group of languages (with the exception of Toda which has no gender distinction at all) developed a feminine category in finite verbs and demonstrative pronouns by adding **-a:ḷ* (variant **-aḷ*) (which was originally a free form meaning 'woman'), e.g. Ta. *avaḷ vanta:ḷ* 'she came'.[4] Similarly, it is easy to explain that the Central Dravidian languages other than Telugu separated the feminine category from the masculine and joined it with the non-human in the plural on the analogy of the distinction - masculine *versus* non-masculine that was already existing in the singular. Therefore the alignment of the feminine category with the neuter in the plural in these languages provides us with an isogloss of shared innovation in them.

2 One isogloss of shared innovation that joins Telugu with the Central Dravidian group is the structure of a few kinship terms indicating a female. These consist of a root (which exists also in other non-Central Dravidian languages) and a derivative suffix that is reconstructable as **-a:ḷ* 'woman' (cf. the South Dravidian suffix of the feminine category **a:ḷ* in demonstrative pronouns and finite verbs). Such forms exist in almost every Central Dravidian language and some of them undoutedly go back to the proto-Central Dravidian stage. Therefore this could be considered as a characteristically

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[3]Emeneau, 1955, pp. 148–9. For more discussion on this topic, see P. S. Subrahmanyam (f a).

[4]Krishnamurti, 1961, § 4.32.

Central Dravidian feature. The following are some of the important groups.

(i) Te. *ko:ḍalu* 'daughter-in-law'; Kol. *koral* 'younger brother's wife'; Nk. *koraḷ* 'daughter-in-law, bride'; Pa. *koṟol* 'bride'; Ga. (Oll.) *koṟal* 'son's wife, younger brother's wife'; Go. *ko:rya:ṟ* 'daughter-in-law' < PCDr. **ko:ḻ-a:ḷ* (*DED* 1787)

(ii) Te. *cel(l)iyalu, cellelu* 'younger sister'; Pa. *ca:lal* 'sister'; Ga. (Oll.) *se:lal*, (S) *cella:l* id.; Go. *se:la:ṟ* 'younger sister' < PCDr. **ce:l-a:ḷ* (*DED* 2288)

(iii) Kol. *podal* 'mother-in-law'; Nk. *podaḷ* id.; Pa. *podal* 'wife's elder sister'; Ga. (S) *po:dal* 'mother-in-law'; Go. *po:ra:ṟ* id.; Kui *po:ra* 'wife's elder sister' < PCDr. **po:t-a:ḷ* (*DED* 3685)

(iv) Te. *maṟãdalu* 'spouse's younger sister, younger brother's wife, younger female cross-cousin'; Kol. *marndal* 'mother's brother's daughter'; Go. *marnḍa:ṟ* 'wife's younger sister, younger female cross-cousin'; Kui *mri:gali* 'maternal uncle's daughter' < PCDr. **maṯant-a:ḷ* (*DED* 3899; the Goṇḍi item is an addition.)

3. Another important point in which all the Central Dravidian languages share a common innovation is the usage of the plural marker in the neuter nouns. In almost all the South Dravidian languages the neuter plural marker is an optional category. The neuter plural marker *kaḷ* in Tamil is entirely absent in many of the early Sangam texts; even in later literature as well as in colloquial Tamil it is used only very occasionally in certain contexts. Same is the case with the neuter plural markers in Malayalam, Kota, Kannaḍa, Koḍagu and Tuḷu. Coming to the North Dravidian group of languages, we find that Kuṛux and Malto do not have any plural suffix at all for neuter nouns and that in Brahui, the

third remaining language of this group, the plural suffix /*k* ∾ *a:k*/, though present, is not used if the plural meaning can be gathered from the context and "is always employed if there would otherwise be any chance of ambiguity"[5] e.g.

dah bandagh (or) *dah bandagh-a:k* 'ten men'
ira: ma:r (or) *ira: ma:-k* 'two sons'

The absence or rare usage of the neuter plural marker is a feature common to the South and the North Dravidian groups and therefore must be attributed to Proto-Dravidian. In all the Central Dravidian languages, on the other hand, the plural marker is a very essential category. Contrast Te. *reṇḍu ceṭṭu-lu*, Go. *ranḍ mara:-k*, Kol. *renḍ ma:k-u:l* (with obligatory plural markers although the preceding numeral indicates plurality) with Ta. *iraṇṭu maram*, Ka. *eraḍu mara*, Tu. *raḍḍi maro*, etc., all meaning 'two trees'. Therefore this innovation shared by all the Central Dravidian languages provides evidence to classify them under a subgroup.[6]

4. The oblique bases of the personal pronouns in all the Central Dravidian languages are traceable to the following (see also the discussion in § 13 below).

1 sg. _*an-_ (<PDr. _*yan-_; *DED* 4234);
1 pl. (excl.) _*am-_ (<PDr. _*yam-_; *DED* 4231);
2 sg. _*in-_ (<PDr. _*nin-_; *DED* 3051);
2 pl. _*im-_ (<PDr. _*nim-_; *DED* 3055).

In the case of the first person forms here, PDr. _*yan-_ and _*yam-_ developed in PCDr. to _*an-_ and _*am-_ respectively by loss of the initial _*y-_ whereas in PSDr. and PNDr. they developed into _*en-_ and _*em-_ respectively by the change of

[5] Bray, 1909, pp. 47-9. Note that Brahui has no gender distinction.

[6] For more detailed discussion on this topic, see Subrahmanyam (f.a).

**ya-* to **e-* presumably because no vowel other than the long *a:* can follow an initial **y-* in the early stages of Dravidian. It is to be noted that the development in the Central Dravidian group is distinct from that in the South and the North Dravidian groups.

In the case of the second person forms also, all the Central Dravidian languages seem to share the innovation of losing the initial **n-* of the PDr. forms both in the nominative as well as in the oblique bases. In this connection, it should be noted that it is possible to interpret the nominative forms with initial *n-* and *m-* (the former in the singular and the latter in the plural forms) in some of the languages, namely, (later) Telugu *ni:vu, mi:ru,* Gonḍi *nimme, nimmeṭ/mira:ṭ,* Konḍa *ni:n* and Kuvi *ni:nu, mi:mbu* as recreations on the analogy of the corresponding oblique bases with initial *n* and *m.*[7]

5. The third person masculine singular forms in all the Central Dravidian languages are traceable to **avanṯ* (: Te. *vā:ḍu*; Kol. *am/amd*; Nk. *avnd*; Pa. *o:d* (NE *o:ḍ*); Ga. *o:nḍ* (Go. *o:l / or* is probably not related to this); Konḍa *va:nṟ(u)*; Kui *aanju*; Kuvi(F) *a:asi.*).[8] When we compare this form with PSDr. **avan,* which probably is also the PDr. form, we find an additional **t* in the final position of the PCDr. form (note the morphophonemic change *n* (alveolar) + *t* → *nṯ* in Dravidian). It is likely that this **t* has been added to the

[7]For an explanation of such oblique bases, see § 13. Also note that the nominative forms of Kolami and Naikṛi, i.e. *ni:v* and *ni:r* are borrowings from Telugu. The initial *n-* in *ni:r* may be due to the analogy of the singular form.

[8]Kuṛux *a:s* and Malto *a:h* are most probably not directly related to hese Central Dravidian forms since apparently there are no othter examples for the correspondence **nṯ* : Kur. *s*; Malto *h*.

original form at the PCDr. stage probably on the analogy of the non-masculine form **at* ending in *t*.[9]

6. In all the Central Dravidian languages with the exception of Kolami, the past adverbial participle contains a characteristic suffix that distinguishes them from the languages of the South and the North Dravidian groups.[10] The suffix is /*si:* ~ *ci:* ~ *ji:*/ in Goṇḍi, /*i* ~ *si* ~ *ci* ~ *ji*/ in Koya,[11] /*su* (~ *ju* / *ji*), *so* (~*zo*)/ in Koṇḍa,[12] /*a* ∞ *sa* ∞ *ja*/ in Kui,[13] /*a* ~ *ha* ~ *sa* ~ *ca* ~ *ja*/ in Kuvi,[14] /*i* ~ *ci* ~ *c*/ in Parji and /*i* ~ *si* ~ *zi*/ in Gadaba (Ollari). An examination of the various allomorphs in the above languages reveals that originally this morpheme was having two principal allomorphs, viz., **i* and **ci*.[15] In Goṇḍi and Koṇḍa the reflexes of **ci* have been extended to all verbs at the cost of **i*; in the rest of the languages, however, the reflexes of both have been retained. In Telugu the past adverbial participle consists of only *-i* from a descriptive point of view but when some of the forms are compared with the corresponding forms of the other Central Dravidian languages, it becomes evident that

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9 Emeneau, 1955, § 10.15.

10 Krishnamurti, 1961, § 4.47.

11 The materials on Goṇḍi and Koya are taken from Subrahmanyam, 1968.

12 It was not possible to find out the exact conditionings of these allomorphs from the available examples.

13 W. W. Winfield, 1928, calls this form "perfect verbal participle." It must be noted here that this form ends in the vowel *a* only when it is followed by the auxiliary verb *man-* 'to be' in the compound tenses and another suffix *-nangaṭi* (with several variants); otherwise it ends in *i* (p. 130) and in this shape closely resembles the corresponding suffixes in the other Central Dravidian languages.

14 Burrow and Bhattacharya, 1963.

15 The conditioning of these two allomorphs with certain exceptions is -- **-ci* was occurring after monosyllabic verbs of

originally *-*ci* was also existing in this language although the *c* has been incorporated into the base through wrong segmentation at a later stage.[16]

Examples:

	Telugu	Gonḍi	Koya	Konḍa	
1	*vacci*	*va:si:*	*va:si*		....
2	*tecci*	*tacci:*	*tacci*	*ta:su*	....
3	*icci*	*si:si:*	*i:si*		....
4	*cu:ci*	*su:ṛsi:*	*u:ḍi*		....
5	*ce:si*	*ki:si:*		*kizo*	....
6		*tohci:*		*to:Rso*	....

	Kui	Kuvi	Parji	Gadaba (Ollari)	
1	*va:ja*	*va:ha*	*veri*	*vari*	'having come'
2	*tasa*				'having brought'
3	*si:a*	*hi:ha*			'having given'
4	*su:ṛa*		*cu:ṛi*	*su:ṛi*	'having seen'
5	*gia*				'having done'
6	*to:ssa*	*to:ssa*			'having shown'

Two points must be carefully noted here. One is that in the South Dravidian languages, on the whole, the past stem, which consists of the verb base and the past suffix serves as the basis for the formation of the past tense as well as the past participle, both adverbial and adjectival.[17] The history of the past adverbial participles of the North Dravidian languages is very uncertain but there are indications that at

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the types (C)V: and $(C_1)V_1C_2$ where V_1 is always short and C_2 is any non-stop consonant and *-*i* after verbs of the remaining types. Also note that the *c* of *-*ci* is voiced to *j* in all the languages when it occurs with verbs ending in a nasal, i. e. *n* or *ṇ*.

[16] See Krishnamurti, 1961, §§ 2.42–6; 85–7.

[17] For details, see Subrahmanyam (f. b), chapter II; also Emeneau. 1967.

least in the earlier stages they were constructed in a similar way as their counterparts in the Southern languages; cf. Malto *ondi* 'having drunk' and Tamil *uṇ-ṭu* 'having eaten or drunk'. The Central languages, on the other hand, contain the past suffix *t* (with several variants) in the finite verb (and also in the adjectival participle) and in this matter agree at least partially with the Southern languages and Kuṛux-Malto of the Northern group. They, however, with the exception of Kolami, deviate from the languages of the other two groups in the structure of the past adverbial participle in the manner described above. The second point is that although the *c* past suffix occurs to a certain extent also in Old Tamil Kota, Toda and the three Northern languages, Kuṛux, Malto and Brahui.[18] the Central languages alone contain it (in the shape that is reconstructable as **ci*) only in the past adverbial participle. These facts make it clear that this feature of these languages is a shared innovation rather than retention from Proto-Dravidian.

7. In addition to the simplex negative tense consisting of verb base+negative suffix+personal ending, which is present in all the Dravidian languages (except Kuṛux and Malto), the Central languages Kolami, Naiki, Kui, Kuvi and Konḍa contain also a past negative tense with the structure, verb base+negative suffix+past suffix+personal ending.[19]

Examples :

Kolami	*si:–e–t–an*	'I did not give'
Naiki	*a:ṛ–e–t–an*	'I did not play'
Kui	*tin–ˀa–t–enu*	'I did not eat'
Kuvi	*hi:–ˀa-t-eˀẽ*	'I did not give'
Konḍa	*su:ṛ–e–t–a*	'I did not see'

[18] See Emeneau, 1957, §§ 39–56.

[19] See Subrahmanyam(f.b),chapter IV; also Emeneau, 1962, p.40.

Parji, on the other hand, has two types of past negative called 'perfect negative' and 'preterite negative' respectively. Of these, the former consists of verb stem + negative suffix + personal ending + perfect suffix (*i*), e.g. *cu:ṛ-a-n-i* 'I have not seen'[20] and the latter verb stem + past suffix + personal ending + negative suffix (*a*), e.g. *cu:ṛ-ϕ-en-a* 'I did not see.' Although these two tenses carry the same significance as the past negatives of the above mentioned languages, their structure is so different from that of the latter ones that any historical connection between them is obviously ruled out.[21]

[20] The difference between the simplex negative and this one is that the former ends in *a* (which is absent only in three verbs) and the latter in *i*. Burrow and Bhattacharya, 1953 (p. 64) note that this is "the least commonly attested" negative tense.

[21] Brahui also has four varieties in the past negative of which that one called the "past negative" may be considered to be the basic, e. g. *tixtavaṭ* 'I did not place.' Bray analyzes it as consisting of verb stem + past suffix (*t*) + negative suffix (*a*) followed by the present of the substantive verb negative, *aʹfaṭ* 'I am not', etc., and further adds in a foot note, "...it might be argued that only the past sign *-t-* and the negative present of the substantive verb are attached to the base. The version given in the text seems, on the whole, preferable." (p. 146, n. 1.). However, since his analysis in the text makes the unwarranted assumption that the negative suffix *a* is lost because of the following vowel, the analysis suggested in the note referred to above seems to be more natural and justified. That is, it is more proper to analyze *tixtavaṭ*, etc. as consisting of an erstwhile past stem (or adverbial participle) *tix-t-* followed by the negative present of the substantive verb. Also note that if this analysis is adopted, this construction will have parallels in other Dravidian languages also, cf. Old Tamil *kaṇ-ṭ (u)* + *ile:n* 'I have not seen' and Gonḍi *va:ccillo:n* (< **va:t* + **sillo:n*) 'I have not come,' etc. Therefore it may be concluded that this Brahui construction, which is clearly syntactic, has nothing to do with the past negative morphological constructions of the Central Dravidian languages that are under discussion.

Professor M. B. Emeneau in a private communication points out that the Brahui perfect negative contains the overt negative morph *-a-* and that therefore this solution, though attractive, is not wholly satisfactory.

Since the past negative construction with an identical structure and with suffixes that are phonologically relatable to each other (the negative suffixes are traceable to *-(?)*a*- and the past suffixes to *-*t*-) is present in five Central Dravidian languages, it can be easily reconstructed to the Proto-Central Dravidian period. Since it has no parallels in any language of the other two groups, it must be interpreted as an innovation that has taken place in the language of that period. Therefore this feature provides us an isogloss of shared innovation in the Central Dravidian languages although it does not include Telugu, Goṇḍi, Parji and Gadaba. It is highly probable that, if not Telugu, at least the latter three languages might have had this construction in their earlier stages and lost it in subsequent periods.

8. Another important feature that is shared by Telugu, Goṇḍi and Parji is the suffix for the negative adverbial participle. The suffix is *-aka* in Telugu and Parji and *-va:k* in Goṇḍi, e.g.

Telugu	Parji	Gondi	
cu:ḍ-aka	*cu:ṛ-aka*	*su:ṛ-va:k*	'without seeing/not having seen'
ra:-ka	*ver-aka*	*va:y-va:k*	'without coming/not having come'
i:y-aka	*ciy-aka*	*siy-va:k*	'without giving/not having given'
tin-aka	*tin-aka*	*tin-va:k*	'without eating/not having eaten'

A comparative study of the negative adverbial participles in all the Dravidian languages reveals that originally it consisted of only the verb stem plus the negative suffix *-*a:*.[22]

[22] Cf. Old Tamil *ceyy-a:* or *ceyy-a:tu* 'without doing/not having done', etc.; see Subrahmanyam (f. b), chapter IV.

Therefore the vowel *a* of the suffix in Telugu and Parji can be considered as the negative suffix *-a-* (ultimately from PDr. *a:), which is present also in the negative finite tense of these languages. Similarly, the *va:* of the Goṇḍi suffix can be considered to be an allomorph of the negative suffix *-v-* found in the second person forms of the negative finite tense and the prohibitive mood of that language, e.g. *veh-v-i:* (sg.), *veh-v-i:ṭ* (pl.) 'You will not tell'; *veh-v-a:* (sg.), *veh-v-a:ṭ* (pl.) 'Do not tell!'[23] No explanation has so far been given for the remaining phoneme, i.e. *k* in the above three languages. In South Dravidian this suffix has been extended by the addition of the past suffix *-t(u)* presumably because this participle has frequent reference to negation in the past. Thus, Old Tamil has both *ceyy-a:* and *ceyy-a:tu* meaning 'without doing/not having done'. A comparison of the above forms with the *ceyy-a:tu* type of South Dravidian makes one suspect that the *k* in them may also be a past suffix in origin.[24] The past suffix *-k-* occurs regularly in Kuṛux, Malto and Brahui.

9. Most of the Central Dravidian languages agree with each other in showing a common meaning for some of the word groups in contrast to the languages of the other groups. In most of such cases it is possible to consider the meaning in the Central Dravidian languages to be the result of shift from the original meaning that the concerned word had in

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[23] It is likely that this *-v-* negative suffix developed into the -ʔ- (glottal stop) of the negative suffix *-ʔa-* of Kui-Kuvi and Konḍa. If this is true, then, it will be another point in which Goṇḍi, Konḍa, Kui and Kuvi agree with one another.

[24] Krishnamurti's explanation, 1961 (§ 4.49) that "this *-k-* may reconstruct to an older /ʔ/ (glottal stop) occurring in the negative tense formation of Kui-Kuvi and Koṇḍa" is not convincing particularly because the *k* follows *a* in the above languages whereas the glottal stop in Kui-Kuvi and Konḍa precedes *a*.

Proto-Dravidian. Some of the interesting cases with such a development are as follows.

(i) Kol. Nk. Go. *karu* 'hunger' : Ta. *karuppu*; Te. *kaṟavu* 'famine' (*DED* 1081)

(ii) Te. *konu*; Koṇḍa *koṟ–*; Kui *koḍ–*; Pe. *koṟ–*; Manḍ. *kṟag–*; Kuvi (Su.) *koḍ–* 'to buy': Ta. Ma. Ka. *koḷ* to receive, take, buy' (*DED* 1788)

(iii) Kol. Nk. *to:ren*; Pa. *toled*, (NE) *toleḍ*; Ga. (Oll.) *toṟon*, (S) *to:ṇḍo:ṇḍ*; Koṇḍa *toṟan*; Pe. *ṭonḍen* '(younger) brother': Ta. *to:ḻan*; Ma. *to:ḻan* 'companion, friend'; Kui *to:ṟe* 'friend' (*DED* 2939)

(iv) Te. *pan(u)cu*; Kol.Nk. *pank–*; Kui *panḍ–*; Kuvi(F) *pand–* 'to send': Ta.Ma. *paṇi* 'to say, speak, order'; Te. *paluku* 'to say'; Kui *pla:–* 'to ask, say'; Br. *pa:n–* 'to say, speak' (*DED* 3212)

(v) Go. *pe:n*; Kui-Kuvi *pe:nu*; Pa. *vẽ:did*, (NE) *vẽ:diḍ*; Ga. (Oll.) *ve:ndiṭ* 'god', (S) *ve:ndiṭ* 'devil(s), spirit(s)'; Kui *ve:nu* 'spirit'; Pe. *pen–* 'god' : Ta. *pe:y*; Ma. *pe:yi*; Ko. *pe:y*; Ka. *pe:tu*; Tu. *pe:yi* 'demon' (*DED* 3635 & 4550)

(vi) Go. *ma:re:l*; Kui *ma:ra*; Kuvi(F) *ma:ṟa*, (S) *ma:ra*; Pe. *ma:ra*; Manḍ. *ma:re* 'wing' : Ta. *maruṅku* 'side, side of body, etc.' (*DED* 3861)

(vii) Go. *marri:*; Kui *mri:enju*; Kuvi (F) *miresi*, (S) *mri:esi*; Koṇḍa *maṟin*; Pe. *mazi* (also Br. *ma:r*) 'son': Ta. Ma. *maṟi* 'young of animals'; Tu. *mari* 'a young animal' (*DED* 3901)

(viii) Pa. *ma:y–* 'to get lost, disappear', *ma:ypip–* (*ma:y-pit–*) 'to lose'; Ga. (Oll.) *ma:yṅ(g)–* 'to get lost, disappear', *ma:yṅp–* (*ma:yṅt–*) 'to lose'; Go. (Mu. Ko.) *ma:y–* 'to be lost': Ta. Ma. Ka. *ma:y* 'to be hidden, disappear' (*DED* 3946)

(ix) Go. *e:r*; Konḍa *e:ṟ*; Kui *e:su*; Kuvi (F) *e:yu:*, (S) *e:yu*; Pe. *e:zuṅ*, *e:s*; Manḍ. *ey* 'water' : Ta. *ya:ṟu*, *a:ṟu*; Ma. *a:ṟu*; Te. *e:ṟu* 'river' (*DED* 4233)

(x) Kol. *va:y-*; Nk. *vay-* 'to sow'; Ga. (S) *vang-*; Go. *vah-* 'to give birth to': Ta. *vai*; Ka. *bay* 'to put, place, keep' (*DED* 4565; in this group Toda-Kota and Kannada–Tuḷu also have the meaning development 'to give birth to' as Gadaba and Gonḍi and, of course, this should be interpreted as a case of parallel development.)

10. Finally, some of the etymological groups in which the Central Dravidian languages contain identical derivative suffixes that are not found in the corresponding forms of the Southern or the Northern languages may be noted. Here are some examples.

(i) Pa. Go. *a:c-*; Kui *a:sk-*; Kuvi (F) *ac-*; Konḍa (BB) *a:s-* 'to choose' : Ta. Ma. Ka. *a:y* 'to search, select' (*DED* 306)

(ii) Te. *duppi*; Kol. (Kin.) *ḍuppi* 'deer'; Pa. *uṟup*; Go. (A) *ḍuppal* 'spotted deer'; Konḍa *ḍupi* 'axis deer': Ta. *uḻai* 'deer' (*DED* 598)

(iii) Go. *aṟja(:)l*, (M,A) *eṟj*; Konḍa *oṟju* : Ta. *eṇku*, *elu*; Te. *elũgu*; Kui *oli* 'bear' (*DED* 729)

(iv) Kol. *o:ḍ-* 'to burst (*intr.*)', *o:ṭ-* 'to smash (pot)'; Nk. *o:ṟ-* 'to break (*intr.*)', *o:ṭ-* id. (*tr.*); Nk. (Ch.) *o:ṟ-* 'to break (*intr.*)'; Pa. *o:ḍ-* 'to break, burst (*intr.*)', *o:ṭip-* (*o:ṭit-*) 'to cause to burst'; Go. *wo:ṟ-*; Kui *o:j-*; Kuvi (Su.) *o:y-* 'to be burst'. Here the intransitive verb is reconstructable as **o:ṭ-* and the corresponding transitive as **o:ṭṭ-*. Although this is a case of retention from PDr., note that the rest of the languages, e.g. Ta. *oṭi*, *uṭai* 'to be

broken', contain only the root allomorph with the vowel shortened because of the derivative suffix that begins with a vowel. (*DED* 799)

(v) Pa. *tacc–*; Ga. (Oll.) *tas–*; Kui *ta:j–* 'to wipe' : Ta. *tai–va:* 'to shampoo, rub, wipe off' (*DED* 2448)

(vi) Pa. *neliñ*, Ga. (Oll.) *nelliṅ* 'moon, month', (S) *nelling;* Go. *nale:nj*, (A) *nelenj, lelenj*; Konḍa *le:ñju* 'moon'; Kui *ḍa:nju*; Kuvi *le:nju;*Pe. Manḍ *le:nj* 'moon, month' : Ta. *nilavu, nila:* 'moonlight, moon'; Te. *nela* 'moon,month' (*DED* 3113)

(vii) Kol. *pars–*; Pa. *parc–*; Ga. (S) *pa:rc–*; Konḍa *pas–*; Pe. Manḍ. *pac–*; Kuvi *pac–* : Ta. *paṟa(:)ṇṭu* 'to scratch' (*DED* 3313)

(viii) Kol. Nk. *mi:te*; Pa. *mu:da*; Ga. *mu:nde* (<**mu:nte*); Go. *molol*; Konḍa *morol*; Pe. *mro:l*; Kui *mṛa:ḍu*; Kuvi *mṛa:lu* (<**mul–al*) : Ta *muyal*; Ka. *mola*; *muṅyā:* ; Br. *muru:* 'hare' (*DED* 4071)

(ix) Pa. *mañ(j)il*; Ga. (Oll.) *mañgil*, (S) *mayṅi:l*; Go. *mal*; Konḍa *mi:ril*; Pe. *mal*; Manḍ. *mel*; Kui *meḍu*; Kuvi *mellu* : Ta *maññai, mayil*; Ka. *maylu* 'peacock' (*DED* 3793)

(x) Kol.Nk. *vende*; Pa.Ga. *vande* (<**ver–*(V)*nte*); Go. *ware:nj*, (M) *vaṛenj*; Konḍa *ṛaska*; Pe. *vacka*; Manḍ. *vehpe*; Kui *vanju*; Kuvi(F) *vwa:nju:*, (S) *wansu* (<**ver–*(V)*nc*) : Ta. *viral*; Ka. *beral*; Te. *v(r)e:lu* 'finger' (*DED* 4436)

(xi) Te. *tra:cu*; Go. *tara:s*; Konḍa *saras*; Pe. *ra:c*; Manḍ. *trehe*; Kui *sra:su*; Kuvi *ra:cu* (<PCDr. **car–ac*) : Ta. *aravu, aravam, ara, ara*: 'serpent' (*DED* 1949)

(xii) Te. *kaṟacu*; Kol. *ka̍rp–*; Nk. *karap–*; Go. *kari:–*;

Pe. Manḍ. *japa–*; Kui *gra:mb–*[25] (<PCDr. **kaṯ–*) : Ta. Ma. Ka. *kal* 'to learn' (*DED* 1090)

(xiii) Te. *na:ku*; Kol. Nk. *na:k–*; Pa. *ne:k–*; Ga. Go· Konḍa Kui Kuvi Pe. *na:k–*; Manḍ. *ne:k–* : Ta. Ma. Ka. Tu. *nakku* 'to lick' (*DED* 2945)

(xiv) Te. *ninḍu*; Kol. Nk. *ninḍ–*; Go. *nind–*; Konḍa *ninṟ–*; Pe. *nenj–*; Kui Kuvi *nenj–* (<PCDr. **ninṯ–*) : Ta. *niṟai*; Ka. *neṟe* 'to become full' (*DED* 3049)

(xv) Te. *panḍu*; Kol. Nk. *panḍ–*; Pa. *paṛñ–*; Ga. (Oll.) *paṛñ (g)–*; Go. Konḍa *panḍ–* : Ta. Ma. *paḻu* 'to become ripe' (*DED* 3299)

(xvi) Go. *pir;* Konḍa *piṟ*; Manḍ. *piy*; Kui *piju*; Kuvi *piyu* 'rain' (<**piṯ*) : Ta. Ma. *pey* 'to rain' (*DED* 3610)

(xvii) Pa. *vercil*; Ga. (Oll.) *varsil*, (S) *varcil*; Go. *vanji:* (<**var–nc (il)*) : Ta. Ma. Te. *vari* 'paddy' (*DED* 4306)

To this list, which could be expanded by some more additions, may be added a list of word groups that are found exclusively in the Central Dravidian languages. They are *DED* entries 48, 95, 165, 197, 348, 467, 493, 498, 508, 596, 623, 703, 757, 1015, 1128, 1372, 1485, 1642, 1768, 1819, 1837, 1838, 1986, 2035, 2349, 2546, 2547, 2571, 2574, 2662, 2693, 2840, 2985, 3096, 3136, 3174, 3261, 3474, 3527, 3549, 3563, 3594, 3731, 3899, 3907, 4165, 4243, 4364, 4447 and 4499.

II. Shared innovations in Telugu-Kui

11. It has already been pointed out in the beginning of this paper that all the Central Dravidian languages can be

[25] The derivative suffix *–mb–* in the Kui verb is an intransitive suffix and has been added to fit this verb into the relationship – intransitive *NB* : transitive *P* with the corresponding transitive verb *gra:p–* 'to teach' (cf. Te. *kaṟ–apu* id.); see Subrahmanyam, 1965, § 24.

brought under two main sub-subgroups. One of them, that is, the Kołami-Parji subgroup has already been very well established (see note 1.) and therefore it is not necessary to discuss it here in any detail. The second subgroup consists of all the remaining Central languages including Telugu and may for short be called the Telugu-Kui subgroup.[26] However, it must be emphasized here that all the members of this subgroup are not so closely interrelated as those of the Kolami-Parji subgroup and therefore might have been existing as independent languages from a comparatively longer period. Below are discussed some of the important innovations that are shared by the languages of this subgroup.

12. One important innovation in this group of languages is the operation of metathesis.[27] Original phonemic sequences of the type $(C_1)\ V_1C_2$ change in this group into $(C_1)\ C_2\ V_1$ with some other concurrent changes that need not be mentioned here. Although these languages differ considerably from one another in the actual operation of this process, as for example, in the fact that Telugu, Pengo, Manḍa, Kui and Kuvi have acquired consonant clusters in the word initial position while Konḍa and Gondi did not, all the languages contain instances of the operation of metathesis. Instances of metathesis in Gonḍi are *raiyo:l* / *leyoġ* 'young man' (< **iḷ-a-*; *DED* 436), *rosk-* / *losk-* 'to bale out' (: Pa. *olc-* id. < **oḷ-(V) c-*; *DED* 3140), etc.[28] In Konḍa metathesis has operated in words like *runḍi* 'two' (< **ir-aṇṭ*; *DED* 401), *ṟel-* 'to pull'

[26] Though it is certain on the basis of the material available in *DEDS* that Pengo and Manḍa also belong to this subgroup, they are not systematically included in the following discussion since so far their grammars have not been published.

[27] See Krishnamurti, 1955, §§ 18-9; also Emeneau, 1963, pp. 24-6.

[28] See Burrow and Bhattacharya, 1960, pp. 77-8.

(: Kui *jel* –; Goṇḍi *eri:– id.* <**eṯ*–; *DED* 4243. This *DED* entry should be brought under initial **e* in view of the Goṇḍi item which is a new addition), *ṛu*– 'to plough' (<**uḻ*–; *DED* 592), *le:ñu* 'moon' (<**el–Vnc*; *DED* 3113), etc. On the other hand, except in the case of a few loanwords from Telugu, metathesis is entirely absent in the languages of the Kolami–Parji subgroup.

13. Another conclusive evidence for the Telugu-Kui subgroup is furnished by the developments of the personal pronouns in these languages. The oblique bases of the first and the second person pronouns in them are as follows. lsg. *na:*–, pl. *ma:*– (exclusive meaning only in Telugu); 2sg. *ni:*–, pl. *mi:*–. When we compare these with the corresponding forms of the Kolami–Parji group, i.e. *an*–, *am*–; *in*–, and *im*– respectively, it becomes evident that the former ones are the result of metathesis.[29] The vowels are lengthened because the phonemic structure of these languages does not allow monosyllabic words ending in a short vowel; or else, the lengthening may be the result of the contraction of the root vowel and the initial vowel of the following case suffix, that is, for example, Te. *na:ku* 'to me' <**an-akk* (cf. Ta. *en-akku* id. both from PDr. **yan-akk)*, etc. The explanation that is proposed here is new and seems to be more satisfactory than that in Krishnamurti, 1961, §§ 4. 38–43; also 1968, §§ 9,17. Although it is not possible to go into the details here, it should be mentioned that it is assumed that the oblique forms of the personal pronouns first underwent metathesis and the the nominative forms in some of the languages added *n* and *m* (the former in the singular and the latter in the plural

[29] Note that metathesis has operated also in the third person masculine singular demonstrative pronoun (see § 5) and also in the oblique bases of the third person non-masculine demonstrative pronouns (singular and plural) of this group.

forms) in the initial position through the influence of the oblique bases with initial *n* and *m*, which are the result of the operation of metathesis. This feature, therefore, can be considered as an innovation that is common to all the languages of the Telugu–Kui subgroup.

14. A study of the noun plural suffixes in the Central Dravidian languages also clearly brings out the fact that Gonḍi, Konḍa, Kui and Kuvi (also Pengo and Manḍa) on the one hand, and Kolami, Naiki, Parji and Gadaba on the other are very intimately interrelated, although Telugu in this matter deviates not only from these languages but also from all the rest of the Dravidian languages.[30]

The non–masculine plural marker in the first four languages mentioned above has essentially identical allomorphs with almost identical distribution. Thay are reconstructable to the proto period of these languages as **-k* and **-nk*, the former occurring after nouns ending in a consonant and the latter after those ending in a vowel.

Examples :

Gonḍi	Konḍa	Kui	Kuvi	Pengo	Manḍa
tara:s-k	*saras-ku*	*sra:s-ka*	*ra:s-ka*		
		**carac-k* 'snakes'			
nah-k	*na:ṟ-ku*	*na:s-ka*	*na:s-ka*	*na:s-ku*	
		**na:ṯ-k* 'villages'			
kaṛ-k	*kaṇ-ku*	*kan-gaḷ* / *kaṛ-ka*	*kan-ka*	*kaṇ-ku*	*kan-ke*
		**kaṇ-k* 'eyes'			
pal-k	*pal-ku*	*pal-ka*	*pal-ka*		*pal-ke*
		**pal-k* 'teeth'			
mollo:-k	*morol-ku*	*mṛa:ṭ-ka*			
		**molal-k* 'hares'			
marka:-ṅ	*maRke-ṅ*	*maha-nga*			
		**maṯka-nk* 'mangoes'			

[30] For details, see Subrahmanyam (f.a).

Goṇḍi	Koṇḍa	Kui	Kuvi	Pengo
putti:-ṅ	*puRi-ṅ*	*pusi-nga*		
		**puṯṯi-nk*	'ant-hills'	
sukka:-ṅ	*suke-ṅ*	*suka-nga*		*huka-ṅ*
		**cukka-nk*	'stars'	
	pu:ṅ-ku	*pu:-nga*	*pu:-nga*	
		**pu:-nk*	'flowers'	
paddi:-ṅ	*panṟi-ṅ*	*paji-nga*		
		**panṯi-nk/*paṯṯi-nk*	'pigs'	
	kō̃:je-ṅ	*ko:nja-nga*		
		**ko:nca-nk*	'(black faced monkeys'	

Such a situation is found to exist only in this group of languáges and nowhere else in Dravidian. It seems to be possible to interpret this as an innovation rather than retention, at least in the case of the allomoph **-nk*, and therefore this provides us strong evidence for grouping these languages into a sub-subgroup. On the other hand, the languages of the Kolami-Parji subgroup have at least four allomorphs for the non-masculine plural marker that are reconstructable as **-kVḷ*, **-ḷ*, **-ciḷ* and **-v* As has been argued elsewhere, at least the first two of these are direct retentions from Proto-Dravidian. It is clear, therefore, that the allomorphy of the non-masculine plural marker bears evidence for the splitting of the Central Dravidian languages (excepting Telugu) into the two sub-subgroups Telugu-Kui and Kolami-Parji.

15. In the formation of the past tense stem of verbs ending in *n* or *l* also, Goṇḍi, Koṇḍa, Kui and Kuvi (also Pengo and Manḍa) agree with one another in showing the original morphophonemic change $\begin{bmatrix} \underline{n} \\ \underset{.}{n} \end{bmatrix} + t \rightarrow \begin{bmatrix} \underline{t}\underline{t} \\ \underset{.}{t}\underset{.}{t} \end{bmatrix}$ against the change $\begin{bmatrix} \underline{n} \\ \underset{.}{n} \end{bmatrix} + t \rightarrow \begin{bmatrix} \underline{n}\underline{t} \\ \underset{.}{n}\underset{.}{t} \end{bmatrix}$ that takes place in the corresponding verbs in the South Dravidian languages.[31]

[31] See Emeneau, 1962, p. 34.

Examples:

Goṇḍi	*in*– (*itt*–)	*un*–(*uṭṭ*–)	*tin*– (*titt*–)	*son*– (*sott*–)
Koṇḍa	*in*– (*iR*–)	*uṇḍ*–(*uṭ*–)	*tin*– (*tiR*–)	*sol*– (*soR*–)
Pe.	*in*– (*ic*–)	*uṇ*–(*uṭ*–)	*tin*– (*tic*–)	*hal*– (*hac*–)
Manḍ.	*in*– (*ic*–)	*un*–(*uc*–)	*tin*– (*tic*–)	*hal*– (*hac*–)
Kui	*in*– (*is*–)	*uṇ*–(*uṭ*–)	*tin*– (*tis*–)	*sal*– (*sas*–)
Kuvi	*in*– (*icc*–)		*tin*– (*ticc*–)	*hal*– (*hacc*–)
Proto-Go.-Kui	**in*– (**iṯṯ*–)	**uṇ*-(**uṭṭ*–)	**tin*–(**tiṯṯ*–)	**cal*-/**can*– (**caṯṯ*–)
PSDr.	**en*– (**enṯ*–)	**uṇ*–(**uṇṭ*–)	**tin*–(**tinṯ*–)	**cel*–(*cenṯ*–)
	'to say'	'to eat or drink'	'to eat'	'to go'
	(*DED* 737)	(*DED* 516)	(*DED* 2670)	(*DED* 2286)

It is interesting to note that in such cases, the assimilation in South Dravidian is only progressive whereas in the above Central Dravidian languages it is reciprocal. Although both types of morphophonemic change exist in the Southern languages (e.g. Ta. *kol* (*koṉṟ*–) 'to kill' *versus* *kal* (*kaṟṟ*–) 'to learn'), it is possible to interpret the change in verbs like those mentioned above of the above mentioned languages as an innovation. A similar development is found also in some of the nouns of these four languages, e. g. Goṇḍi *eddi:* 'sunshine' (<**eṯṯi* : Ta. *eṉṟu* (<**el* + **t*), *el* 'sun'; *DED* 738 & 707); Goṇḍi *paddi:*, Kui *paji*, Kuvi *pajji* (<**paṯṯi* : Ta. *paṉṟi* 'pig' (*DED* 3326). Can this be from **pal* 'tooth' (*DED* 3288) + **ti* ?).

16. Goṇḍi, Koṇḍa, Kui and Kuvi (also Pengo and Manḍa) agree with one another also in having a few phonologically relatable transitives that correspond to some intransitive verbs that originally ended in **n* or **nṯ*.

Examples:

(i)	Go.	*tin–*	'to eat'	*tih–*	'to cause to eat'
	Pe.	*tin–*	,,	*ti:c–*	,,
	Kui	*tin–*	,,	*ti:s–*	,,
	Kuvi	*tin–*	,,	*ti:ss–*	,,
	PDr.	**tin–*		PDr. **ti:ṯṯ–*	[*DED* 2670(a)]
(ii)	Go.			*toh–*	'to show'
	Konḍa	*to:ṟ–*	'to appear'	*to:R–*	,,
	Pe.	*co:nj–*	,,	*co:c–*	,,
	Manḍ.	*hu:nj–*	,,	*tu:c–*	,,
	Kui	*to:nj–*	,,	*to:s–*	,,
	Kuvi	*to:nj–*	,,	*to:ss–*	,,
	PDr.	**to:nṯ–*	,,	PDr. **to:ṯṯ–*	(*DED* 2942)
(iii)	Go.	*nind–*	'to be filled'	*nih–*	'to fill'
	Konḍa	*ninṟ–*	,,	*niR–*	,,
	Pe.	*nenj–*	,,	*nec–*	,,
	Manḍ.			*neh–*	,,
	Kui	*nenj–*	,,	*nes–*	,,
	Kuvi	*nenj–*	,,	*ness–*	,,
	PCDr.	**ninṯ–*	Proto-Go.-Kui	**niṯṯ–/*neṯṯ–*	(*DED* 3049)
(vi)	Go.			*veh–*	'to speak, tell'
	Konḍa	*ven–*	'to hear'	*veR–*	,,
	Pe.	*ven–*	,,	*vec–*	,,
	Manḍ.	*ven–*	,,	*veh–*	,,
	Kui	*ven–*	,,	*ves–*	'to cause to hear, speak'
	Kuvi	*ven–*	,,	*vess–*	,,
			(Su.)	*veh–*	'to say'
	PDr.	**ven–*	Proto-Go.-Kui	**veṯṯ–*	(*DED* 4472 & 4498)[32]

[32] Although PDr. **ṯṯ* generally does not develop into *h* in Gonḍi, this correspondence is found in all the above four sets and

Although it is certain that the intransitives and the transitives in the first two examples are retentions from Proto-Dravidian the transitive base in the fourth example is created only at the Proto-Gonḍi-Kui-Kuvi stage on the pattern that was already existing in sets like that in the first example. In the third example, the intransitive base with the derivative suffix *-*nṯ*- goes back only to the Proto-Central Dravidian stage (see § 10) and the corresponding transitive base has been created at a later stage, that is, in Proto-Gonḍi-Konḍa-Kui-Kuvi on the pattern that was already existing in sets like that in the second example [33]

17. Telugu and Gonḍi share an important innovation in the formation of the second person plural of the imperative mood. The imperative suffixes of Telugu, Gonḍi, Konḍa, Kui and Kuvi are given below.

	Singular	Plural
(Old) Telugu	-*u*(*mu*)	-*uṇḍu*
Gonḍi	-*a*:(~-*m*)	-*a*:-(~-*m*-)+-*ṭ*
Koya	-*a*(~-*mu*)	-*a*:-(~-*mu*:-)+-*ṭi*(~-*ṭu*)
Konḍa	-*ʔa*	-*du* (~ -*ḍu* ~ -*ṟu*)
Kui	-*mu*(∞ -*amu*∞ -*umu*)	-*aṭu* ∞ -*du* (~ -*ḍu*~ -*ju*)
Kuvi	-*mu*(∞ -*amu*)	-*adu* ∞ -*du* (~ -*ju*)

therefore it must be concluded that the *ṭṭ of the transitive bases develops to *h* in Gonḍi. Therefore the entries of Gonḍi, Konḍa, Pengo, Manḍa, Kui and Kuvi of *DED* 4498 must be grouped with *DED* 4472. Also note that Gonḍi (Tr.) *wanka:na:*, (*AY*) *vaṟk*- 'to speak' (see also Burrow and Bhattacharya, 1960, entry 3200) does not belong to *DED* 4498 but must be grouped with *DED* 3212 Ta. Ma. *paṉi*; Te. *paluku* 'to speak', etc. This Gonḍi item is shifted to *DED* 4345 in *DEDS*; still it seems to me that the grouping suggested above is more plausible since in *DED* 4345 Tamil alone contains a verb whereas in *DED* 3212 most of the languages contain verbs; in addition, Telugu, Kolami and Naiki verbs contain the -*k*- derivative suffix as the Gonḍi verb does (for *p- : Gonḍi *v*-, cf. **pa*:*ṭ*- 'to sing': Go. *va*:*r*- id. *DED* 3348.)

[33] For details on the intransitive-transitive relationships in the derivative suffixes in Dravidian, see Subrahmanyam, 1965.

A glance at the above table reveals that in this group of languages the imperative singular suffix is basically *-*m*; the plural suffix has to be reconstructed as *-*t* although it is certain that it changed, at least in certain conditioning environments to retroflex *-*ṭ* already at thé proto stage oj these languages itself. The comparative evidence shows that -*m* is originally the plural suffix in the imperative; it occurs as such in Old Tamil (also in colloquial Tamil with the addition of the neuter plural suffix -*kaḷ*), Kota and Old Kannada and the Brahui imperative plural suffix -*bo* may also be from this *-*m*.[34] The occurrence of *m* as a plural marker in contrast to the singular *n* in the personal pronouns and the reflexive pronoun throughout the Dravidian family also supports this view. Therefore, it must be assumed that the original plural suffix *-*m* was transferred to the singular at the proto stage of the above languages probably because a new plural suffix has entered into the language. From this stage, Goṇḍi (along with Koya) and Telugu have undergone another change by way of adding this *m* also in the plural form. Sets like the following clearly indicate that the Telugu plural suffix -*uṇḍu* is from original *-*um*- + *-*ṭ* through assimilation of the *m* to the retroflex position and the voicing of *ṭ* to *ḍ*.[35]

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[34] For details, see Subrahmanyam (f.b), chapter VII.

[35] I suppose that this is the correct explanation for the Telugu imperative plural suffix rather than that suggested by Krishnamurti, 1961 (§ 4.48). He states: "It is likely that in pre-Telugu *-*tu* (-*du*), occurring after *n*- final bases as *-*nṭu*/*-*ndu* (>Te. -*ṇḍu*) was carried over to the rest of the system by analogical leveling." This is not convincing because verbs ending in *n* are very few in Telugu and the spead of analogy from a minor subclass to the whole system is rather uncommon. Even if this is accepted, the mperative plural form of such verbs would be *tiṇḍu* < **tin-ṯ* : *tin*- 'to eat'), etc. but the actual forms in the language are only *tin-uṇḍu*, etc.

		Singular	Plural	
(i)	Gonḍi	*si:-m*	*si:-m-ṭ*	'Give!'
	Koya	*i:-mu*	*i:-mu:-ṭu*	,,
	Telugu	*i-mmu*	*i-ṇḍu*	,,
(ii)	Gonḍi	*ki:-m*	*ki:-m-ṭ*	'Do!'
	Telugu	*ce:y-umu*	*ce:y-uṇḍu*	,,

The *m* suffix occurs in Gonḍi only after verb bases of the type (C)V: and in Koya after verb bases of the types (C)V (where V is either long or short) and $(C_1) V_1C_2$ (where V_1 is always short and C_2 is one of the consonants *ḍ*, *y*, *r* and *v*). In Old Telugu the singular suffix *-umu* freely varies with *-u* (without the final *mu*) except when it is followed by a word beginning with a vowel. In Konḍa the *m* suffix does not occur at all. In Kuvi the singular suffix *-mu* freely alternates with *-a* at least in certain dialects.[36] These restrictions on the occurrence of the *m* suffix in the singular of the several languages suggest that its occurrence in the singular is only secondary and that it was originally confined only to a certain class of verbs as in Gonḍi and Koya. Between the latter two, it is more likely that Koya preserved the original situation and Gonḍi regularized it by extending the other variant to all verbs (except those of the type (C)V:) at the expense of *m*. It is likely, therefore, that Old Telugu and also Kui and (some dialects of) Kuvi regularized the formation of the imperative singular by extending the *m* suffix to all verbs in them.[37] In a similar way, the Old Telugu plural

[36] Burrow and Bhattacharya, 1963 (p. 259) state: "Forms of the imperative singular in *-a* beside the usual forms in *-mu* occur. We recorded only two such forms, *re'a* 'pull' and *tina* 'eat', but Schulze gives such forms as regular alternatives to the forms in *-mu* : *manna/mannamu*, *wa:a/wa:mu*, etc."

[37] Although modern Telugu imperative singular forms do not contain the *m* suffix, they regularly add the empty morpheme *-ani* when they are immediately followed by the verb *an-* 'to say,

suffix *-uṇḍu* (< **-um-ṭ*) has also been extended to all the verbs in that language. It must be noted that in the formation of the imperative plural pre-Telugu and Goṇḍi exclusively share the innovation not only of adding the *m* suffix (which must be descriptively analyzed as the imperative suffix with a following number suffix: sg. *-φ*, pl.*-ṭ* at least for Goṇḍi) in the plural but also of generalizing the plural suffix as retroflex *ṭ* in contrast to Koṇḍa and Kui (and also Kuvi ?) which contain both the dental and the retroflex stops as conditioned variants.

18. The evidence presented in the above paragraphs of the second part of this paper makes it possible to group the languages Telugu, Goṇḍi, Koṇḍa, Kui and Kuvi (and also Pengo and Manḍa) into one major subgroup of the Central Dravidian group. However, the problem of the relationship of Telugu with the other six languages of this subgroup requires some additional comment. Although Telugu shares the innovations described in § 12 and § 13 with the other six languages, it deviates to a considerable extent from them by not sharing the innovations discussed in §§ 14–15 which they underwent as a close-knit group. To explain this situation in terms of the historical development, we may probably have to assume that Telugu first split off from the proto stage of these seven languages and after that the other six languages remained together for a considerable period and that during this period the innovations that are shared exclusively by them took place. However, in § 17 we have seen

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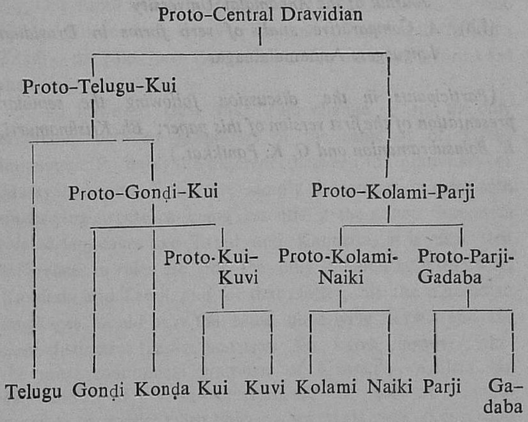
instruct' in the construction meaning '(subject) asks/asked (somebody) to do so-and-so', e.g. *ceyy-am* + *anna:ḍu* '(he) asked (somebody) to do (something)'. (imp. sg. *ceyyi!*, pl. *ceyyaṇḍi!* 'Do!'). Therefore, applying the procedures of internal reconstruction, it is necessary to reconstruct the **-am* in the imperative singular of the pre-modern Telugu stage.

that Telugu exclusively shares an innovation with Goṇḍi, which, according to the above assumption, remained undivided from the other five languages for some time after the former branched off from this group. This can only be explained by the assumption that the innovation which is exclusively shared by Telugu and Goṇḍi is the result of the operation of the "wave process"[38] after their separation rather than by positing a period of common development for Telugu and Goṇḍi which is not supported by any other isogloss of innovation that is exclusively shared by them. The various stages of the development of the present-day Central Dravidian languages from the Proto-Central Dravidian period are represented by the following family-tree diagram.



[38] This is plausible since these two languages are still geographically contiguous even after their separation. See Bloomfield, 1933, §§ 18.12-13; also Southworth, 1964.

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(*Participants in the discussion following the seminar presentation of the first version of this paper: Bh. Krishnamurti, K. Balasubramanian and G. K. Panikkar.*)

Language Change and Language Distance

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It has often been proposed[1] that language change, seen from a generative-transformational point of view, must be described as *rule change*. That is, if the grammar, or structure of lexical items, or phonological alternations are different in, say, Old Tamil and Modern Tamil, the reason is that a 'rule change' has resulted, between the time of Old and Modern Tamil- -the rules have changed, but the underlying forms are the same.

It is, however, clear that 'rule change' is not the only difference between grammars of the same or of related languages. Probably the difference between the grammars of Malayalam and Tamil are simply differences in rules with underlying structures being essentially the same. But with related languages like Tamil and Kannada, it is clear that differences in rules are not the only differences. Otherwise, Kannada and Tamil, and for that matter, all the Dravidian languages, would have the same underlying forms and the same distinctive feature matrices. We know, however, that the most economical grammar of Kannada requires the distinction of voice-voicelessness, because we cannot generate or predict when voiceless segments will occur, and

[1] Halle 1962

when voiced segments will occur. Furthermore, such underlying morphophonemes as *ṟ* and *ḻ*,[2] required for Tamil, are not necessary in the inventory of Kannada to generate the verb stems, even though their inclusion in some cases eliminates the need for distinguishing between *t* and *d* as a past marker.[3] That is, if we posit the underlying form of *ki:ḷu* 'uproot' to be *ki:ḻu*, we can predict that its past will be *kitt*–. But inclusion of *ḻ* in all forms which historically had it will complicate the grammar, because a form like *bi:ḷu* 'fall' has a past *bidd*–, and special rules will be needed to produce the past in *dd* rather than *t*. These rules will be complex and ad hoc, and will not make for an economical statement about the facts of Kannada.

It is obvious, therefore, that not only the rules of Tamil and Kannada have changed, but that the underlying forms of their lexical items have changed, and their distinctive feature matrices have thus changed, too. That is, Tamil and Kannada no longer have the same matrices, or inventory of morphophonemes, that Proto–South–Dravidian had.

We can perhaps therefore measure the 'distance' between such languages by comparing the rules that they have in common; for instance, we can say that Tamil and Malayalam are closely related, while Tamil and Kannada are less closely related. This is of course obvious, but we now have a way to say what the criteria are for making this judgment. It is also obvious that late rules (i. e. rules near the end) of a grammar based on ordered rules are less significant than early rules, so that since Tamil and Malayalam differ only in late rules, they are closer than Tamil and Kannada, which differ not only in late rules, but in underlying forms and distinctive feature inventories.

[2] Tamil ற and ழ

[3] See Schiffman 1968

For this reason, we can state for certain that Malayalam and Tamil are definitely closely related, because the features in which they differ can be provided by the last rules of a grammar. That is, since we know that person–number-gender affixes, which Malayalam lacks, can be provided by agreement rules of the syntax, and such rules are always among the last rules of a syntax, we can say that Malayalam lost these rules at a late stage, and therefore the difference is not significant. Even if the opposite were true, i.e. that Tamil–Malayalam never had person–number-gender suffixes, but Tamil added them later, the rule would still be late, and therefore not terribly significant. If such rules were early rules, there would be some substance to the false claim that Malayalam and Tamil "split" at an early point, or that Malayalam "retains" a state of affairs which might date from Proto-South Dravidian.

The task facing comparative Dravidianists is now to write generative grammars of the various languages, and compare them according to the above-mentioned criteria. All other methods of comparison are doomed to failure.

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(The first draft of this paper was read in the seminar by N. Kumaraswami Raja.)

New Dravidian Languages

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1. Development of Dravidian studies in modern times

The term 'Dravidian' actually indicates an 'Indian' and not a 'South-Indian' family of languages. Tamil, Malayalam, Kannada and Telugu are its principal members which are better known for the rich literature contained in them, and also for the progressive people who speak them. Some of these great literary languages of the South attracted the attention of foreigners as early as the middle of the 16th century A. D. Fernão Loper de castanteda wrote about them in his Portuguese account of Indian affairs published during 1551-61.[1] These four languages continued to be the major attraction for scholars and missionaries in the subsequent centuries during which time a number of grammatical studies were published on them. Comparative linguistics was not much in vogue in those days. The authors writing on these Indian languages were descriptive in their outlook. Moreover, it was commonly believed at that time that Sanskrit is the source of all the Indian languages. Comparison of languages was therefore not counted in those days to be a profitable academic pursuit. The discovery of Sanskrit by William Jones in 1786

[1]See Grierson and Konov, 1906, pp. 350, 366

might have lent some indirect support to this belief, and European scholars also took it for granted at that time that all the Indian languages originated from Sanskrit. Thus the existence of a Dravidian or any non-Aryan speech group in India seems to have been unknown upto the end of the 18th century, although comparative linguistics was not quite unknown in the latter part of that century.

The establishment of the Fort William College at Calcutta in 1801 ushered in a new era in the study of modern Indian languages. William Carey who was the Head of this institution conducted the first linguistic survey of India. In his report prepared in 1816 he had also confirmed that "Tamul, Kurnata and Telinga" are languages springing from Sanskrit[2]. He was perhaps misled by the large number of Sanskritic loan words in those languages, and in spite of his first-hand knowledge of them he failed to perceive their non-Sanskritic common core.

Curiously enough, in the same year was published A. D. Campbell's *A Grammar of the Teloogoo language* containing an Introduction by Mr. Ellis, a Madras Civilian, in which Mr. Ellis compared some vocables of the three South Indian speeches to show their inter-relationship.[3] This struck a new note in the study of modern Indian languages. A further progress in the study of Non-Aryan linguistics was made about 25 years later when Stevenson, 1841-44, compared the Indian languages on a much larger scale and remarked that "A more critical examination of the subject, however, convinces him that there are many words in common use especially in the languages of Southern India, that cannot after making every allowance for corruption, be derived from the

[2]Grierson, 1927–28, p. 11
[3]Caldwell, 1956, p. iv

Brahmanical tongue" (p. 103).[4] In this article Stevenson also sought to establish that there are many non-Sanskritic elements in the North Indian languages which were borrowed from the Southern idioms. Caldwell, 1856, opined, "He (*i. e. Stevenson*) failed to establish that point, but many of his remarks on the characteristic features of Dravidian Grammar, and on the essential unity of the Dravidian dialects were perfectly correct" (p. iv). We, therefore, find that the study of the Dravidian languages started at first with the isolated study of the southern literary languages. The idea of their inter-relationship occurred to the scholars gradually by the forties of the 19th century. The influence of the Southern tongues on the Northern Indian languages was also being suspected towards the end of this period, though not conclusively proved.

A great limitation of the Dravidian studies prior to the forties of the last century was that scholars did not know, nor any one did suspect at that time, that there are many non-literary tongues spoken by the aborigines of Southern, Central and Northern India, which are of the same linguistic stock as that of the great literary languages of the South. Some of these tribal tongues were brought to light in the mean time. Thus, R. E. Roberts wrote on the Malto speech in 1779, B. Schmidt wrote on the Toda in 1837[5] and R. Leech wrote on Brahui in 1838. The forties and fifties of the last century, prior to the publication of Caldwell's book in 1856, saw the publication of some more 'new' tongues spoken by the non-literates, which belong to this new family of languages established later by Caldwell, and

[4]See also Grierson, 1927–28, p. 15

[5]Emeneau, (1957, p. 18) mentions of an earlier work, i. e. Harkness, 1832

named by him as "Dravidian". For example, Voysey wrote on Gondi in 1844, M. Buhler wrote on Badaga in 1849 and John Percival Frye wrote on Kui in 1851.

Another interesting development took place during this period. B. H. Hodgson published word lists in 1848 and 1856 containing specimens of tribal speeches spoken in Southern India, Central India and the Himalayan regions. He designated all these tribal speeches as "Tamulian" on the supposition that "all these aborigines of India, as distinguished from the Aryans, or Sanskrit-speaking race and its offshoots, belong to one and the same stock, and that of this aboriginal race, the Tamilians of Southern India are to be considered as the best representatives.[6] At about the same time (1854) Max Muller was also convinced that all the Indian languages are not of Sanskritic origin and that there are many non-Aryan languages in India which include the sub-Himalayan, Kol and the Tamilian families. Max Muller called them the Nishada languages.[7] According to Caldwell, Professor Rask of Copenhagen was the first to express that the Dravidian languages are to be affiliated, not with the Indo-European, but with the Scythian group of tongues, and that the Scythian family to which they appear to be most closely allied is the Finnish or Ugrian.[8]

In this way the stage was set for the appearance of Robert Caldwell whose epoch-making book *A Comparative Grammar of the Dravidian or South-Indian Family of Languages*, as already stated, was first published in 1856. Caldwell's contribution lay in proving conclusively that the Dravidian languages form a distinct speech family which is

[6]See Calwell, 1856, p. iv

[7]*op. cit.*

[8]See Caldwell, 1856, p. v

different from Indo-Aryan, Kolarian (i. e. Munda) and the Himalayan groups of Indian speeches, and that these tongues have not only been influenced by the Indo-Aryan languages, but have also influenced them, and that this new group consists not only of the four great literary languages of the South but also have in it some uncultivated rude languages spoken by the Indian aborigines. He examined also the question of the external affiliation of this new family and observed, "on the whole, the Dravidian languages may be regarded as most nearly allied to Finnish or Ugrian family, with special affinities, as it appears, to the Ostiak" (p. 46).

Caldwell is aptly called the "Father of Comparative Dravidian Linguistics", because the subsequent writers on Comparative Dravidian pursued the lines of discussion initiated by him. Thus, many scholars worked on the inter-relationship among the different Dravidian tongues, on the phonological, morphological and other levels, thereby refining many of Caldwell's original statements and also opening new grounds in these respects. Scholars who made significant contributions in this sphere are Sten Konow, Subbayya, Ramaswami Aiyar, Tuttle, Bloch, Burrow, Emeneau, Krishnamurti, Meenakshisundaran, 1965, and others.[9] The question of Dravidian migration and substratum was discussed by Schrader, Tyagaraju, Tuttle, Burrow and others.[10] More extensive work on the influence of Dravidian languages on Indo-Aryan, and *vice versa*, was done by Kittel, Gundert, Burrow, Emeneau, 1966, and others.[11] And a large number of scholars agreed with Caldwell that the study of the Dravidian languages should not be confined to

[9]Zvelebil, 1956 and Andronov, 1964

[10]Zvelebil, 1956, p. 603

[11]Andronov, 1964, and Emeneau and Burrow, 1962

the four great literary speeches of the South, but should also include the uncultivated Dravidian tongues spoken by some Indian tribes. Scholars who emphasised on this point in their writings are Sten Konow, Tuttle, Ramaswami Aiyar, Bloch, Emeneau, Burrow and others.[12]

2. Emergence and utility of the 'new' Dravidian languages

Caldwell's book gave a very good start to the study of Dravidian linguistics. Much work was done after him both to acquire fresh descriptive material on the Dravidian languages, and to analyse and examine this material from the comparative point of view. In our present paper we are more concerned with the study of the non-literary Dravidian languages which received great impetus as a result of Caldwell's inclusion of some of them in his book. In the first edition of his book, while enumerating the Dravidian languages, Caldwell, 1856, mentioned the names of nine major languages, of which five (i. e. Tamil, Telugu, Canarese, Malayalam and Tulu) are literary speeches, and four (i. e. Tuda, Kota, Gond and Ku) are uncultivated tribal speeches (pp. 4-10). Mention has also been made in it of the dialects spoken by the Koḍagu, Badagar and the Kurumbar, and of the three speeches Brahui, Malto and Kurukh. About the latter three, Caldwell stated, "I have not included, however, the Brahui, or the Rajmahal and Uraon, in the list of Dravidian languages which are to be subjected to systematic comparison (though I shall give some account of them in the sequel, and shall refer to them occasionally for illustration), because the Dravidian element contained in those languages bears a small proportion to the rest of their component elements."

In between the publication of the Ist and the 2nd edition

[1]-Andronov, 1964

of Caldwell's book there appeared some more publications on the literary and non-literary Dravidian languages, listed by Caldwell himself in his 2nd edition. In the second edition of his book he continued the same classification of the Dravidian languages into cultivated and uncultivated idioms and mentioned six languages under each head, adding Kudagu in the first and Maler or Rajmahal and Uraon (i. e. Kuru_kh_) in the second.[13] Brahui was still left out from the list of Dravidian languages. The number of distinct Dravidian languages known at that time was therefore twelve.

The study of the uncultivated Dravidian speeches continued, and the census operations were throwing up new names of languages for being studied by scholars. The publication of the fourth volume of the *Linguistic Survey of India* in 1906, compiled by Sten Konow, was another important milestone in the progress of Dravidian studies. This publication listed for the first time two "new" Dravidian languages, namely, Kolami and Naiki and some dialects, e.g. Burgandi, Kaikadi, etc. It also treated Brahui as a Darvidian language. It may be mentioned here that Kolami and Naiki were first recorded by Hislop, and his material was published, as early as 1866. Caldwell used Hislop's Gondi material in his 2nd edition,[14] but did not take into account his material on Kolami and Naiki. Apart from recording some new Dravidian tongues, *LSI* introduced also a new classification of the Dravidian languages into five groups, namely, Tamil, Intermediate, Andhra, Brahui and Semi-Hybrid. Apart from its excellent contributions to the Dravidian studies, the publication of the different volumes of *LSI* as a whole helped a

[13]Caldwell, 1875, pp. xiii-xiv
[14]Caldwell, 1875, p. 38

systematic growth of the studies of the modern Indian languages.

The period of Dravidian studies preceding the publication of *LSI*, IV (1906) may be called Caldwell's age, after which started the age of *LSI* which may be said to have extended upto 1940. During this period no other 'new' Dravidian language was brought to light excepting the Kuvi speech studied by Fitzgerald, 1913, and Schulze, 1911 & 1913. The fresh material recorded by these two authors, however, made little impression on the scholars at that time due to the defective transcription used in them, and also perhaps because it was believed then that Kuvi is a dialect of Kui. But during this period which extended upto the forties of the present century, some of the non-literary Dravidian languages which were already known, were studied by able scholars. Mention may be made in this connection of Trench's Gondi,[15] Winfield's Kui,[16] Bray's Brahui[17] and Emeneau's Kolami, Toda, Kota, Koḍagu,[18] etc. During this period Ramaswami Aiyar was the foremost among the Indian scholars who showed much keenness towards the non-literary Dravidian languages and used the fresh material collected from them in his comparative Dravidian studies.[19] The total number of Dravidian languages listed in *LSI* was fifteen, and this number was considered to be final during this period.

A new age of Dravidian studies may be said to have started from the forties of the present century when Bloch and

[15] Trench, 1919 and 1921

[16] Winfield, 1929

[17] Bray, 1909 and 1934

[18] Emeneau completed his field–work on these languages during 1935–38. His publications on these languages are mostly after 1940. See Emeneau 1944–46, 1955, 1957, etc.

[19] Andronov, 1964

Burrow began their more serious and systematic studies putting greater emphasis than before on the non-literary Dravidian languages. The fresh material published by Trench, Winfield and Bray helped them to have a better understanding of Dravidian as a whole. *LSI*'s five-fold classification of the Dravidian languages was during this new period replaced by a more rational classification of the speeches of this Family into Southern Dravidian, Central Dravidian and North Dravidian. Dravidian now became an Indian family of languages and not a South Indian family of languages, a term used by Caldwell to describe it.

But our knowledge of Central and North Dravidian being inadequate at that time a greater need was felt to know more about them. This urge brought Burrow to India in 1950 to study Parji which was recorded in the *LSI* as a dialect of Goṇḍi, but which appeared to Burrow from the scanty material published in *LSI* to be a distinct speech. Burrow's surmise proved true from a detailed study of Parji[20] in which work the present writer collaborated with him. Naikṛi, an important dialect of Kolami, was also recorded by us from Adilabad during that field season. Next year (1951) the present writer picked up Koṇḍa,[21] and the Ollari[22] and Salur dialects of Gadba from the wilds of Koraput and Salur, which proved to be important additions to the list of Dravidian languages. In their survey of 1957–58 Burrow and the present writer succeeded in recording one more 'new' Dravidian language, i. e. Pengo, and in 1964 another one, i.e. Manḍa, apart from their collection of further

[20] Burrow and Bhattacharya, 1953

[21] Bhattacharya, 1956 and also field–notes collected later by Burrow and Bhattacharya in 1957–58 and by Krishnamurti

[22] Bhattacharya, 1956 and Burrow and Bhattacharya, 1962

fresh material on the different dialects of Gondi (including Maria, Muria and Koya),[23] Naiki,[24] Kui,[25] and Kuvi.[26] Caldwell's Dravidian family, as we have already seen, consisted of twelve members, and Sten Konow's (*LSI*) fifteen with the addition of Brahui, Kolami and Naiki. Adding Parji, Gadba (Ollari and Salur dialects), Koṇḍa, Kuvi, Pengo and Manḍa we have raised this number to twenty one now. Following is a full list of the Dravidian languages regionally classified:

A. *Southern Dravidian :–* Tamil, Malayalam, Kannada, Tuḷu, Koḍagu, Toda, Kota, Telugu.

B. *Central Dravidian :–*

(a) *Kolami-Parji sub-group* : Kolami, Naiki, Parji Gadba.

(b) *Gondi–Kui sub-group* : Gonḍi, Pengo, Manḍa, Konḍa, Kuvi and Kui.

(Kolami is spoken in Yeotmal and Adilabad Districts, Naiki in Chanda District, Parji in Bastar, Gadba in Koraput and Srikakulam, Gondi in Madhya Pradesh and the Eastern part of Maharashtra, Pengo and Manḍa on the border of Koraput and Kalahandi Districts, Konḍa and Kuvi in Koraput, and Kui in Kondhmal, Ganjam and other neighbouring regions.)

C. *Northern Dravidian :*

(a) *North–Eastern sub-group* : Kuru<u>kh</u>, Malto

(b) *North–Western sub-group* : Brahui

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[23] Burrow and Bhattacharya, 1960

[24] Bhattacharya, 1961

[25] Burrow and Bhattacharya, 1961

[26] Burrow and Bhattacharya, 1963

It will be seen that as a result of our exploratory surveys the Central Dravidian group has gained the utmost, because all the six languages added by us to Dravidian belong to this group. Our descriptive accounts of four of these new languages, namely, Parji, Koṇḍa, Ollari (Gadba) and Kuvi, and the additional fresh material on Goṇḍi, Naiki and Kui and Emeneau's book on Kolami, have stimulated further researches in Proto-Dravidian.

Zvelebil 1956, rightly remarked about Caldwell that "his comparison is actually mostly limited to synchronic comparison, his method being thus not historical and comparative, but only the latter" (p. 603). When Caldwell stated that the different Dravidian idioms are not merely provincial dialects of the same language, but have "sprung from a common origin", he undoubtedly hinted at the Proto-Dravidian speech. A historical study was obviously not possible at his time due to lack of adequate knowledge of the non-literary Dravidian languages. It is to be noted that these tribal Dravidian languages remained isolated for a long time and through the bilingualism of their speakers came under the influence of Indo-Aryan comparatively recently, while the contact of Old and Middle Indo-Aryan with the Upper-class dialects of the four great languages of the South goes back to a much earlier period.

Our idea of Dravidian was greatly developed towards the end of the fifties of the present century when we had access to the rich store of material deposited in Central Dravidian. This new material not only gave a depth and extensiveness to the comparative Dravidian material published by Burrow and Emeneau, 1961, in their *A Dravidian Etymological Dictionary*, but had also emboldened the authors to publish along with this book a "preliminary set of statements of phonetic correspon-

dences" which is on the whole quite satisfactory. The reliable records of the new Dravidian languages helped the authors with an insight into the historical processes in Dravidian, whereas the four great Dravidian languages having a long literary history had a stabilizing effect upon their judgments. Dravidian linguistics is incomplete without the non-literary Dravidian languages, and it is definitely poor and insignificant without the four great Dravidian languages of the South.

The search for new Dravidian material, happily has not been confined to the study of the non-literary Dravidian languages, or to the study of the standard dialects of Tamil, Malayalam, Kannada and Telugu. Recently there has been a tendency also to study the different dialects of these literary languages spoken by the rural and illiterate people, by the different caste-groups and other social groups. Zvelebil's, 1959, *Dialects of Tamil-I* is a good beginning in this respect. W. Bright's, 1958, *An outline of colloquial Kannada* and Bh. Krishnamurti's, 1962, *A Telugu Dialect Dictionary of Occupational Vocabularies* show the wide range of topics offered by dialectal studies. The results that have accrued from these studies have not yet been thoroughly processed and utilized for the promotion of our knowledge of the evolution and diffusion of the Dravidian speeches. It is also true that greater and more systematic efforts should be made in this direction having the objectives of our studies clearly outlined first before they are undertaken. The utilities of studying the obscure dialects of standard languages are many. Two of them may be emphasized here. Language being an important unit of our social behaviour, it is interesting to see the degree of speech variation between two social groups who are not much distant culturally from one another, and to correlate

this variation with the variation in other aspects of their culture. The semantic versatility and the other sources of economy and strength of the common man's speech should also be clearly understood before these peculiarities are obliterated from the rural dialects as a result of the subtle process of standardization which is increasing day by day with the progress of industrialization in our country side.

3. Central Dravidian

We have described briefly the history of the Dravidian studies in modern times portraying against this background the emergence of the 'new' Dravidian languages, treating the four great languages of the South to be the 'old' ones, i. e. the Dravidian languages *par excellence*. It has also been shown that the forests of Central India kept concealed quite a few important members of the Dravidian family of languages which have been brought lo light recently. A full comparative analysis of the Central Dravidian languages is yet a desideratum. I will make here a few statements on Comparative Central Dravidian. The Central Dravidian languages share many common charecteristics with other languages of the Family. And in many respects they differ collectively and individually from South Dravidian. The regional divisions of Dravidian however, should not be considered as water-tight compartments, for they often overlap with one another. Telugu being the northern-most speech of South Dravidian, it agrees more with Central Dravidian, although there are many traits where Central Dravidian agrees more with the non-Telugu South Dravidian languages. For example, the retention of Proto-Dravidian **k-* is a feature commonly shared by the Central Dravidian languages and Kannada, whereas in Telugu and Tamil it changes under certain environments. The Central Dravidian languages have

not only retained many Dravidian features, but have also been changed in many respects following the general pattern of the Dravidian languages of the South. The belief that the Dravidian languages of Central and Northern India have greatly changed due to the influence of Indo-Aryan is not fully correct. We will now discuss and demonstrate some Dravidian characteristics and innovations of Central Dravidian.

The usual Dravidian vowel system with five short phonemes and the corresponding long ones is to be found also in this Central group of speeches. Vowel-length is not phonemic in many Eastern Modern Indo-Aryan languages including Oṛiya. Many of the tribes who speak Central Dravidian live in Orissa and are bilingual, but they have still retained the phonemic long vowels in their Dravidian tongues. Diphthongs are not common in these Dravidian languages, although they abound in Oṛiya and the Munḍa languages of this area. The consonantal glides *y* and *v* are often used in these Dravidian languages to prevent hiatus. It will be found from *DED* that many words are used in these languages where the original quality and quantity of vowels are intact. The South Dravidian type of alterations of the quality and quantity of vowels are also to be met with in this area. For example, the change of *a*, *a*: to *e*, *e*: is quite common in Parji and is also present in some other Dravidian languages of this group. Alteration of vowel quantity in Kolami has been discussed by Emeneau, 1955, p. 21. The shortening of long vowels in the oblique cases of some pronouns is quite common in the Parji-Kolami sub-group. The unchangeableness of the Dravidian roots mentioned by Caldwell is attested also by the Dravidian languages of Central India. Caldwell, sensibly enough, tried to explain the variations by assigning more

than one reason to them (e. g. euphonic exceptions, shortening of internal vowels due to suffixed inflexional increments, etc). A shift in the accent was later advanced as the reason for these vowel variations.[27] In some languages of the Central group, specially Pengo and some dialects of Goṇḍi, a long vowel has been shortened perhaps due to greater bilingualism of the speakers. The final auxiliary *-u* which is so common in South Dravidian, particularly in Telugu, is sporadically present in the Central Dravidian languages, but it has been lost from many words. Kui among the Central Dravidian languages has retained this *-u* to a considerable extent.

The Dravidian consonant system is, on the whole, well preserved in Central Dravidian, apart from the palatals, cerebrals and alveolars, in the cases of which the most important changes have taken place. Initial **k-*, **t-*, **p-* are intact in all these languages. Palatalization of initial **k-* before the front vowels which is to be found in Telugu, Tamil and Malayalam, is absent in Central Dravidian. As elsewhere in Dravidian, outside Tamil and Malayalam, sporadic cases of the voicing of originally unvoiced stops are to be found in the Dravidian languages of Central India; cf. Parji *berto* 'big', Tamil, Kannada *per-*, etc; Pengo *gil-* to sprout, Tamil *kiḷai*, etc. The voicing of iner-vocalic **-k-* is normal in South Dravidian, but a further softening of it to *-v-*, *-y-* is rare there. The inter-vocalic **-k-* is *-g-* in most of the Central Dravidian languages, but its turning into *-y-* is normal in Goṇḍi and Kuvi, and in Parji the original *-k-* is found as *-g-*, *-v-* or *-y-*. But, at the same time, in many words of this group of Dravidian languages the inter-vocalic single *-k-* is also found to be used being derived either from an original *-kk-* or from some extraneous source. This is generally true

[27]See also Krishnamurti, 1955

of all the inter-vocalic stops in Central Dravidian. Further details may be seen in *DED*. Of the retroflex sounds, **ḷ* is generally lost in Central Dravidian except in Naikṛi, a dialect of Kolami and the Abujh-Maṛia dialect of Goṇḍi. It is either changed to *l* or *ṛ* in Central Dravidian. Likewise, original retroflex nasal (*ṇ*) has been changed to *n* in most of these languages, as also in Telugu, but it is preserved in Koṇḍa, Pengo, Manḍa, Kuvi and to some extent in Ollari. Initial *ṭ*– is permissible in Central Dravidian. Original inter-vocalic -*ḍ*- has the normal Dravidian development to -*ḍ*- in Kolami and Parji, but elsewhere, in most cases, it is changed to *r* or *ṛ*. Retroflex -*ḍ*- is of course found in combination with nasal, or derived from a geminated -*ḍḍ*- in late borrowings, or from some extraneous source. Original -*ṭ*- has a special development in Pengo, Kui and Kuvi where it is softened to -*c*-, -*z*-, etc. The use of the flapped retroflex *ṛ* is common in Central Dravidian. It either stands for different original Dravidian sounds or is derived from Indo-Aryan. In Central Dravidian, original *c* has been preserved only in Parji, and to some extent in the Salur dialect of Gadba. Elsewhere in Central Dravidian it is changed to *s*, *h*, etc. The aspirates are absent in it as is usual in Dravidian. Aspirated stops in Indo-Aryan loan-words are mostly deaspirated in Central Dravidian. But an aspirated sound (*h*) has developed from **c*, through *s*, particularly in Kui, Kuvi and Pengo. This sound is still a voiceless aspirate in the pronunciation of the majority of informants, although it is now tending towards the IA voiced *h* due to the bilingual speech-habit of the speakers. The trilled alveolar *-*ṟ*- and *-*ṟṟ*- are retained only in Koṇḍa, and the trilled *-*ṟ*- to some extent in Goṇḍi. In the Koṇḍa dialect which is more influenced by Oṛiya, the -*ṟṟ*- is often changed to *ṟh*, the *h* being still in most cases a

voiceless aspirate. The Dravidian *ḻ* has not been preserved in Central Dravidian. In most languages of this group it has been changed to *ṛ*; for details see *DED*. Some non-Dravidian sounds are found, though not universally, in Cenral Dravidian. The glottal stop which occurs in Kui, Kuvi, Pengo, Manḍa, Konḍa and the Abujhmar dialect of Gonḍi is one such new sound. It has not been recorded from any of the languages of the Parji-Kolami sub-group.

Phonemic long consonants are present in Central Dravidian, but not in such large numbers as in South Dravidian. An allophonic doubling of single consonants after short vowels is found in Central Dravidian. On the other hand clustering of different non-nasal consonants is very common in Central Dravidian, but not so in South Dravidian. A stop forming a cluster with *-r-*, *-l*, or a retroflex sound in the initial position as a result of metathesis, is a peculiar feature of Kui, Kuvi, Pengo and Manḍa in Central Dravidian, and also of Telugu in South Dravidian.

The Central Dravidian morphology has also the same three-fold characteristics, i. e. (1) the core of it is Dravidian, (2) it has undergone some distinct developments both collectively and in individual languages, and (3) that the influence of Indo-Aryan or of some other sources is also noticeable in it. Bloch in his book on Dravidian has discussed Gonḍi and Kui in the wider back-ground of Dravidian morphology. The data collected from the other languages of this group have thrown much welcome light on it and have enabled us now to get a fuller picture of Dravidian. We will discuss here only a few morphological issues. The gender system in Dravidian is very complicated. The concordance between the gender of the common nouns and the adjectives and verbs which is to be found now in many Dravidian languages, may

not be posited also for Proto-Dravidian. But it is quite likely that Proto-Dravidian was not devoid of a gender system. In spite of the diversities to be found in the gender in Dravidian languages, the basic pattern seems to be a classification of the common nouns into superior and inferior. A sex-based three-fold classification of common nouns into masculine, feminine and neuter was perhaps introduced later, and had to be adjusted with the earlier status-based two-fold classification. It is to be noted that a separate feminine gender is said to be an innovation also in Indo-European.[28] So far as the gender is concerned, Brahui-Toda and Tamil-Kannada sub-group occupy two extreme points in Dravidian. In the former, gender has been altogether lost, and in the latter a feminine gender has developed upto a point of having distinct nominal, pronominal and verbal forms in the singular only. In the Central Dravidian languages the basic division seems to be still retained in the two-class verb forms for the third person. The superior class, when expressed in terms of the sex-based terminology corresponds only with the masculine nouns, while the inferior class of verbal forms corresponds with the feminine and neuter nouns. But if there is no distinct feminine verb form in any of the Central Dravidian languages, suffixed distinct feminine forms of nouns are of course used in all of them, and distinct feminine forms for demonstrative pronouns and adjectives are used in some, particularly in Pengo. The Parji-Kolami sub-group of Central Dravidian has developed distinct feminine forms for the numerals. A living Dravidian suffix to form feminine nouns is found in Kui, Pengo and Goṇḍi. Elsewhere, an ancient Dravidian feminine suffix is retained in some words whereas the Indo-Aryan feminine suffix *-i* is

[28] Burrow, 1955, p. 201

used mostly with Indo-Aryan loanwords. Telugu agrees with Central Dravidian and Kuru*kh*, Malto in having a two-fold classification of the 3rd person verbal forms, but with a significant difference in that in Telugu the feminine goes with masculine in the 3rd person plural as is the case in Tamil and Kannada.

Dual number is absent in Central Dravidian as elsewhere in Dravidian. All the plural suffixes used in Central Dravidian are of Dravidian origin. The singular suffix *-n* is retained in some words, but most words in Central Dravidian are devoid of a singular suffix. The pronouns and demonstratives of these languages are also recognizable as Dravidian. Nominal and pronominal oblique forms of the Dravidian type are common in Central Dravidian. Clear forms for the inclusive and exclusive plurals for the second person pronoun have been recorded from some languages of this group. Negative verbs and relative participles of the Dravidian pattern are to be found in all the languages of this area. A present-future tense is an important feature of most languages of this group.

4. Fresh material from Dravidian languages of other areas

Recent studies, as I have already said, have not been confined only to the Dravidian languages of the Central group. It is true that a 'new' member of the Family has not yet been recorded from any other area. But many Dravidian languages of other areas which were only imperfectly known, have been studied in recent years by competent scholars. These fresh data have enhanced our knowledge of Dravidian as a whole. In this matter Emeneau's name occupies the foremost place in the list. His *Kota Texts*, 1944-46, contain excellent additional material on Dravidian Linguistics and Indian Folklore. His *Toda, a Dravidian language*, 1947,[29] is

[29]See S. Bhattacharya's review in *Man in India*, 38.3, 1958

another remarkable publication containing a very useful and reliable account of an aberrant and difficult language of the South Dravidian group. His *Brahui and Dravidian comparative grammar* (1962a) and his *Dravidian and Indian linguistics* (1962b) which contain articles on "Brahui Demonstrative Pronouns," "New Brahui Etymologies," "North Dravidian Velars", etc. have enriched the field with fresh data and their interpretation, and are good attempts at filling up the gaps.

5. Summary

By the term 'New Dravidian Languages', I have taken to mean the Dravidian tongues other than the four great literary languages of the South. Most of these languages are spoken by the Indian aborigines. While discussing briefly the development of Dravidian studies in modern times, I have tried to focus on the progress of our knowledge of these Dravidian languages in course of the last one hundred years or more. In order to stimulate interest in them I have also discussed briefly the nature and quantity of fresh material collected from these languages, and also its usefulness in the study of Dravidian as a whole. Our knowledge of these non-literary Dravidian languages has remarkably expanded our mental horizon. It is a good sign that students of Dravidian linguistics are becoming more and more interested in these new Dravidian tongues. Descriptive accounts of most of these languages are scattered in different publications which are not easily available. In some cases the material is still inadequate. Hence I wish to remind that the Indian and foreign institutions which are interested in the study of Dravidian linguistics will have to make a renewed and more systematic effort to remove these handicaps.

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(A brief summary of this paper was read in the seminar by G. Vijayavenugopal.)

Adjectives in Kurukh

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1. Introduction

Kuru<u>kh</u> (phonemicized as Kũ:ṛux) belongs to the North Dravidian group of the Dravidian family. This language, according to the recent Census reports (1961) is spoken by 11,41,804 persons who live in the areas between Madhya Pradesh and Assam.

This study is based on the data supplied by Mr. Francis Ekka who is a native speaker of Kũ:ṛux[1] and I must add that the analysis is only tentative.

2. General

Adjectives are words which are in attributive construction with nouns. In Kũ:ṛux most of the adjective forms do not agree with the gender or number of the following nouns. But there are some which do agree. These will be discussed later in this paper. Thus one gets the following types of adjectives used in Kũ:ṛux. The formation of these are described under each type.

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[1]Mr. Ekka belongs to Raigarh District of Madhya Pradesh. He has two Post-Graduate Degrees (one in Hindi and another in Linguistics) and is now a research scholar in the Madurai University, Madurai.

2.1. *Type (1) By putting nouns in juxtaposition*

Exx: *eṛpa: vali* 'the door of the house' (lit. house-door)
pũ:mp ma:la: 'flower garland'

2.2. *Type (2) Numeral adjectives*

2.2.1. This kind of numeral adjectives are formed by adding the forms denoting numbers before the nouns.

Exx: *õ:nd u:l* 'one day'
ẽ:ḍ ro:j 'two days'

2.2.2. Another kind of numeral adjectives are formed by adding the suffix *-a:*[2] to the stem alternants which denote numbers.

Exx: *pahl + a: čitra:* 'first deer'
tis + ra: a:las 'third man'

2.2.3. A third kind of numeral adjectives are formed by adding classifiers.[3] These classifiers are added in between the numeral adjective and the following noun. In the case of human category the classifier *-jʰan* is added; if it is non-human the classifier *-ṭʰu* is added.

Exx: *du:y jʰan sañge:r* 'two (human) friends'
du:y ṭʰu sikṭa: 'two (non-human) wolves'

This type of formation corresponds to Telugu usages like *padi mandi a:ḍa pillalu* 'ten (persons) girls' where the form *mandi* is added.

2.3. *Type (3) Pronominal adjectives*

These are formed by adding *a:*, etc. before nouns.

Ex: *a: ča:n* 'that year'

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[2]This has got morphologically conditioned allomorphs *-ra:* and *-ta:*. As suggested by Dr. Bh. Krishnamurti in the seminar discussion this may be a borrowing from Hindi.

[3]See Emeneau 1956, p. 11.

2.4. *Type (4) Qualitative adjectives*

These are formed by adding words denoting quality before nouns.

Exx:	*čhola:n*	*a:las*	'good man'
	kohā:	*a:las*	'big man'

2.5. *Type (5) Adjectives formed by reduplication*

In some cases reduplicated form of the whole word or morpheme when put before a noun functions as an adjective.

Exx:	*nanna:*	*nanna:*	*a:las*	'different persons' (*nanna:* 'another')
	jaṅ[4]	*jaṅ*	*a:las*	'angry person'

2.6. *Type (6) Verbal adjectives*[5]

These are formed by adding the infinitive forms before the nouns.

Exx :	*mo:xna:*	*čitra:*	'eatable deer'
	bilčna:	*bi:nko:*	'twinkling stars'

2.7. *Type (7) Derivative adjectives*

These are formed by adding the following suffixes to the noun stems.

2.7.1. *-ta:* 'of/belongs to'

Exx :	*eṛpa: ta:*	*kʰaṭi*	'the cot of/which belongs to the house'
	jaṅgal ta:	*čitra:*	'the deer of the forest'
	padda: ta:	*a:las*	'the man who belongs to the forest'

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[4] *jaṅ* < *jaṅga:rna* 'to become wild'

[5] Hahn (1900) gives two more of this type, viz. (1) those which are formed by adding the past participial forms before the nouns and (2) those formed by adding nouns of agency. But neither of these occur in the data collected by me. A detailed analysis of the morphology is necessary.

2.7.2. *-gahi*[6] '(made) of'

Ex: *ka:ṅk gahi kʰaṭi* 'the cot (made) of wood'

2.8 *Type (8)*

As already stated there are some adjectival forms which vary according to the gender of the following nouns. In this way a concord or agreement is maintained between the words. The suffix *-a:* is added to masculine and *-i:* to feminine.

Exx: *muṇḍra: a:las* 'bald man'
muṇḍri: a:li 'bald woman'

Similarly *-a:* is added if it is followed by a word which belongs to the human category and *-i:* if it belongs to the non-human category.

Exx: *orma: a:lar* 'all human beings (males and females)'
ormi:[7] *čitra:* 'all deers'

This kind of concord is found only in a limited number of words. Generally in most of the cases the same form is used irrespective of the following words.

Exx: *puna: a:las* 'new man'
puna: a:li 'new woman'
puna. jinis 'new thing'

It has to be stated that in languages like Tamil, Telugu, Kolami[8] this kind of concord which is discussed already is not found.[9] Perhaps the usages found in Kũ:ṛux may be

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[6] *-gahi* is used also as the genitive case suffix but it does not give the meaning '(made) of'.

[7] Sometimes an alternant form *urmi* is also used.

[8] Emeneau 1961, p. 31

[9] But my colleague Dr. P. S. Subrahmanyam informs me that he has noted the same situation in Gondi also.

due to borrowing from the surrounding Indo–Aryan languages. The distinction found between the plural, common to both males and females and non-human plural, is probably a case of retention of the oldest stage of the gender distinction in Dravidian, the distinction between Human and Non-human. Since the data is very limited it is very difficult to come to a conclusion.

2.9. *Negative adjectives*

Negative adjectives are formed by adding the form *mal* before the adjectives.

Exx: *mal dav a:las* 'ugly person' (lit. not–beautiful person)

mal dav a:li 'bad woman'

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(Participants in the discussion following the seminar presentation of the first version of this paper: M. Andronov, Bh. Krishnamurti and S. Rudin.)

Gender in Dravidian

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In this paper special attention is paid to the gender system in Kannada and some observations are also made about the languages, Tulu, Havyaka Kannada, etc.

According to Śabdamaṇidarpaṇa, a systematic and comprehensive work on Old Kannada by the celebrated grammarian, Ke:śira:ja (1260 A.D.), there are nine different genders in Kannada. They are (1) Masculine (2) Feminine (3) Neuter (4) Masculine-feminine (5) Feminine-neuter (6) Masculine-neuter (7) Samasta liṅga (common gender) (8) Viśe:ṣya:dhi:na liṅga or Va:cya liṅga (dependent gender) and (9) Avyaya liṅga.

Examples for the nine genders :

1. Masculine – *arasam* 'king'
2. Feminine – *arasi* 'queen'
3. Neuter – *kannaḍi* 'mirror'
4. Masculine–neuter –

   ravi mu:ḍidam 'the sun (he) rose'

   ravi mu:ḍidudu 'the sun (it) rose'

Similarly the names of the nine planets are of masculine–neuter gender.

5. Masculine-feminine - The epicene plural is used both for masculine and feminine genders.

ivar puruṣar 'These are men'

ivar stri:yar 'These are women'

The word *toḻtu* 'servant' is also similarly used.

ivan de:vara toḻtu 'This man is the servant of God'

ivaḷ de:vara toḻtu 'This woman is the servant of God'

6. Feminine-neuter -

a: peṇ ja:ṇe 'That woman is clever'

a: peṇ bandudu 'That woman has come'

7. Common gender (*Samasta liṅga*) -

ni:n 'you', *ta:n* 'one self', *a:n* 'I', *śiśu*, *hasuḷe*, *magu*, *ku:su* 'child', *sondi* 'profligate person', *page* 'enemy', *keḷe* 'friend', *arasu* 'king' and *taruvali* 'boy' belong to the common gender.

8. *Viśe:ṣya:dhi:na liṅga* or *Va:cya liṅga* (dependent gender) — In this the meaning is dependent on the *viśe:ṣya* (qualified).

Ex: *abhima:ni ivan* 'This man is a person of honourable feelings'

Similarly the noun *da:ni* 'a donor', *sa:dhu* 'an honest person', *ra:gi* 'a person given up to passion', *bho:gi* 'an enjoyer', *sukhi* 'a happy person', *he:ḍi* 'a coward', etc. have masculine or feminine genders depending upon the gender of the qualified.

9. *Avyaya liṅga*

Here the particles (*avyayas*) are made to function as nouns in all the three genders by the addition of suitable suffixes.

Ex: *kammiḍan* 'fragrant man'

Here the particle is *kammittu*. This is made to function as noun in the masculine gender by the addition of the suffix *an*.

kammidaḷ 'fragrant woman'. The addition of the *aḷ* suffix has made this noun feminine.

kammitu 'fragrant object'. This noun is in the neuter as the suffix added is *tu*, the neuter suffix.

The particles *bho:ṅkane* 'swiftly', *mellane* 'slowly', *kammane* 'fragrantly', *summane* 'quietly', *mige* 'greatly', *dal* 'certainly', etc. may be used with verbs in all the genders. For example in *bho:ṅkane bandam* 'He came swiftly', the masculine gender is seen. In *bho:ṅkane bandaḷ* 'She came swiftly', the feminine gender is noticed. In *bho:ṅkane bandu* 'It came swiftly', we see the neuter gender.

Thus though it is mentioned that there are nine genders, we find now in present-day grammars only three genders, masculine, feminine and neuter. Those which denote men are masculine and women are feminine. Those which denote all else than the above are neuter. The use of other genders is not found.

Now let us take the verbal conjugational suffixes. They are *am*, *ar*, *ay*, *ir*, *en*, and *evu*. *am* and *ar* are the suffixes used for the third person (masculine) singular and plural, *ay* and *ir* the suffixes for the second person singular and plural, and *en* and *evu* for the first person singular and plural respectively.

Here the third person singular suffix *am* obviously denotes the gender.

avam bandam 'He came'

Similarly the words *osedam* 'he loved', *naḍedam* 'he walked', *nuḍidam* 'he said', *bagedam* 'he thought', etc. refer to masculine gender as the suffix added is *am*.

In Kannada as well as in Tamil we see the three genders, masculine, feminine and neuter distinctly. The masculine suffix is *an*, the feminine suffix is *aḷ* and the neuter *du*. These suffixes are used in the third person singular pronouns.

avan̲, *avanu* 'he'; *avaḷ*, *avaḷu* 'she'; *adu* 'it'

The suffixes are also noticed in the predicate of the sentence in all the three tenses with the third person singular as the subject. The masculine *an* suffix is noticed below:

Tamil	Old Kannada	Medieval Kannada	Modern Kannada	Gloss
varukir̲a:n̲	*bandapan*	*bandahan*	*barutta:ne*	'He is coming'
vanta:n̲	*bandam*	*bandanu*	*bandanu*	'He came'
varuva:n̲	*barpan*	*bahanu*	*baruvanu*	'He will come'

The feminine *aḷ* suffix is noticed in the examples:

varukir̲a:ḷ	*bandapaḷ*	*bahaḷ*	*barutta:ḷe*	'She comes'
vanta:ḷ	*bandaḷ*	*bandaḷu*	*bandaḷu*	'She came'
varuva:ḷ	*barpaḷ*	*bahaḷ*	*baruvaḷu*	'She will come'

The neuter suffix *du* is noticed in the examples below:

varukir̲atu	*bandapudu*	*bandahudu*	*baruttade*	'It comes'
vantatu	*bantu/* *bandudu*	*bantu/* *bandudu*	*bantu/* *bandudu*	'It came'
varum	*barpudu*	*bahudu*	*baruvudu*	'It will come'

It may be noticed that in third person neuter singular future, the *udu* suffix is found used in Kannada (*baruvudu*), whereas in Tamil (*varum*) it is not used.

Again it may be seen that the *n* suffix is also seen in the predicate in all the three tenses of the first singular.

Ta.	OKa.	MKa.		Gloss
na:n̲ varukir̲e:n̲	*a:m bandapem*	*na:nu*	*barutte:ne*	'I come'
na:n̲ vante:n̲	*a:m bandem*	*na:nu*	*bandenu*	'I came'
na:n̲ varuve:n̲	*a:m barpem*	*na:nu*	*baruvenu*	'I will come'

Here the *n* does not show the gender.

In Tuḷu, one of the five important Dravidian languages, the masculine suffix is *e*, feminine is *aḷ*, and neuter is *vu*. (*avu* 'it', *nduvu* 'this', *ovu* 'which', *evu* 'which'). It is interesting to note that the masculine suffix *ė* is also added to neuter nouns like *kaṇṭė battė* 'The tom-cat came', *bogrė korepuvė* 'The dog (male) barks'. Lexically these nouns are neuter but grammatically they are considered as masculine.

The Tuḷu verbal conjugational suffixes are *ė*, *erụ*; *a*, *arụ*; *e*, *o* for the third, second and first persons respectively. The first suffix *ė* is for third person singular masculine only. The feminine is *ḷ*. The third person neuter singular is *u* and plural is *o*.[1]

In Telugu there are no separate gender suffixes for the feminine and neuter. The suffix *adi* is used for both the feminine and the neuter (third person) pronouns. It is used also in the predicate of the sentence with the third person feminine or neuter singular as the subject.

adi ce:sinadi	'she or it did'
adi paḍinadi	'she or it fell'

The masculine gender suffix in Telugu is *ḍu* as in *va:ḍu ce:sina:ḍu* 'He did'.

Thus the masculine gender is distinct from feminine and neuter. The masculine comes under the heading *mahat* 'masculine' and the feminine and neuter under *amahat* 'non-masculine'. This is the special interpretation of the words given by the Telugu grammarians as distinct from the literary meaning of 'great' and 'non-great', given in the dictionaries and also accepted by Jules Bloch (1954). In Tolkappiyam also

[1] These observations are slightly different from those of Meenakshisundaran 1965a (p. 7).

the genders are classified into two: *uyar tiṇai* 'the high class' and *a∴riṇai* 'the non-high class'. The human beings come under the former class and the remaining under the latter.

In Telugu there is also a distinct feminine suffix *a:lu* used in the third person singular. Exx:

mitruḍu	'man friend'	*mitrura:lu*	'woman friend'
manumaḍu	'grandson'	*manumara:lu*	'grand-daughter'

In Malayalam as in Tamil and Kannada, the third person masculine singular suffix is *an* and the feminine suffix is *aḷ*. These suffixes are seen only in third person singular pronoun in masculine and feminine respectively. *an* is suffixed also to masculine proper nouns. Exx: *ra:man*, *kṛṣṇan*, etc. Unlike Tamil and Kannada the *an* and *aḷ* suffixes are not used in the predicate of the sentence with third person singular as the subject. The predicate construction is the same for all the three genders in Malayalam in both the numbers.

Present tense

avan ceyyunnu	'He does'
avaḷ ceyyunnu	'She does'
atu ceyyunnu	'It does'

Past tense

avan ceytu	'He did'
avaḷ ceytu	'She did'
atu ceytu	'It did'

Future tense

avan ceyyum	'He will do'
avaḷ ceyyum	'She will do'
atu ceyyum	'It will do'

In Havyaka Kannada, a dialect of the Kannada language,

we find that the neuter gender suffix is used for the feminine also. This usage is common to both the subject and predicate as found in Telugu.

We find in sutra 226 of Śabdamaṇidarpaṇa, the Old Kannada grammar, a clue to the earlier usage of common verbal forms applicable to all tenses, numbers and genders. The sutra says that the verbal forms with the suffixes *gum* and *kum* may be used for all tenses, numbers and genders.

Examples

Present: *emagi:gaḷe su:cisugum* '(They) show us now'

Past: *andu ma:ḍugum* '(He) did then'
andu maḷkum ,,

Future: *avar na:ḷe ka:ṇgum* 'They will see tomorrow'

Masc.: *bhu:valaya:dhipam nuḍigum* 'The king says'

Fem.: *taḷo:dari bisusuygum baygum* 'The woman sighs and abuses'

Neuter: *ko:gileyuligum bi:sugum gandhava:ham* 'The cuckoo sings and the wind blows'

Sg. *orvane gelgum kiri:ṭi kaurava balamam* 'Arjuna conquered the Kaurava army singly'

Pl. *balana:ra:yaṇarirvarum nuḍigum* 'Both Balarama and Narayana said'

siḍilgaḷeragugum 'Thunders fall'

All these observations go to strengthen the view that the present-day distinctions in gender are not natural to Kannada as well as the other Dravidian languages. There might not

have been gender distinctions in nouns also in Dravidian languages in an early state. The distinctions might have crept in later. But these were still late to appear in the predicate (in verbal construction) as is proved in its non-existence in some dialects and in some languages like Malayalam (see *avan ceyyunnu* 'He does', *avaḷ ceyyunnu* 'She does', etc.)

We can also infer from the above observations in Telugu and Havyaka Kannada, that at one stage of the language there might have been only two genders: the masculine and the neuter. The feminine gender might have appeared later.

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(Participants in the discussion following the seminar presentation of the first version of this paper: Sp. Thinnappan, P. S. Subrahmanyam, K. Kushalappa Gowda, S. V. Shanmugam, A. Kamatchinathan and S. Agesthialingom.)

Phonology and Noun Morphology of Parji

A linguistic restatement*

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Introduction

The speakers of Parji, a Central Dravidian language in Madhya Pradesh occupy a narrow strip of territory surrounded by Bastar on the west, Koraput on the east, Jagdalpur on the north and Jeypore frontier on the south.

The number of speakers of Parji, according to the 1961 Census Report is 19,847. The Linguistic Survey of India, Vol. IV (1906) presents a brief account of this language in two pages. The editors erroneously classed this language as a dialect of Gondi. Burrow and Bhattacharya (1953) established for the first time Parji as an independent branch of Dravidian family of languages. Their structural statements brought an end to the controversy of Parji's status as a dialect of Goṇḍi.

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*Only a fragmentary account of the noun morphology is presented in this paper. For a restatement of Parji verb morphology, see Chandola 1964. I thank Prof. Bh. Krishnamurti for reading and commenting on an earlier draft of this paper at Cornell University in May 1967.

The speakers of Parji are cultivators. Their name comes from the corruption of the Sanskrit term *praja:*, which means 'subject' or 'people'. The neighbouring Gonds call them *Ka:p*, the equivalent for which is *kã:pu* 'cultivators' in Telugu. Burrow and Bhattacharya recognize four dialects in this language, viz. the North-Western, the Southern, the North-Eastern and the Central.

The first part of their book deals with the phonology and morphology of the language. In the second part there are nine texts with translation. The third part contains an etymological dictionary.

I. Phonology

1. PHONEMIC INVENTORY

1.1. *Vowels*

	Front	Central	Back
High	*i*		*u*
Mid	*e*		*o*
Low		*a*	

1.2. *Co-vowel*

/:/ length

1.3. *Consonants*

	Labial	Alveolar	Retroflex	Palatal	Velar	Glottal
Stop vl.	*p*	*t*	*ṭ*	*c*	*k*	
,, vd.	*b*	*d*	*ḍ*	*j*	*g*	
Fricative		*s*				*h*
Nasal	*m*	*n*		*ñ*	*ṅ*	
Trill		*r*	*ṛ*			
Lateral		*l*				
Semi-vowel	*v*			*y*		

1.4. *Contrasts*

1.4.1. *Vowels: Short vs. Long*

	INITIAL		MEDIAL		FINAL	
i	*iral*	'two women'	*cik*	'stake'	*guññi*	'owl'
i:	*i:ve:r*	'two pairs of bullocks'	*ci:k*	'to tear'		
e	*ende*	'at that time'	*neñj*	'poison'	*a:re*	'where'
e:	*e:nda*	'to dance'	*ne:ñj*	'to breathe'		
u	*utka*	'ropes'	*kudu*	'thigh'	*a:ru*	'hornbill'
u:	*u:tka*	'hiccup'	*ku:ta*	'male animal'		
o	*ori*	'yesterday'	*koṭal*	'hoe'	*kopito*	'to fill'
o:	*o:r*	'they'	*ko:ṭa*	'a kind of bug'		
a	*akaṭi*	'like'	*kap*	'time'	*garḍa*	'cave'
a:	*a:kub*	'steam'	*ka:p*	'diapers'		

1.4.2. *Consonants*

	INITIAL	INTERVOCALIC	FINAL	IN GEMINATION	AFTER NASAL
p	*payal* 'green–gram'	*apoṭ* 'that time'	*ko:p* 'to tend'	*gappa* 'bamboo basket'	....
b	*bayal* 'lunatic'	*kabul* 'promise'	*a:kub* 'steam, vapour'	....	*nombir* 'fever'
t	*tiyar* 'festival'	*a:ta* 'like that'	*at* 'in that direction'	....	*tintut* 'broken pot'
d	*diyar* 'lamp'	*a:da* 'ginger'	*garad* 'donkey'	*gadda* 'vulture'	*nendi* 'heat'
ṭ	*ṭonḍa* 'Adam's apple'	*a:ṭu* 'loft under the roof'	*a:poṭ* 'that time'	*moṭṭa* 'log'	*remṭal* 'short stature'
ḍ	*ḍonḍa* 'oyster shell'	*aḍey* 'wife'	*ko:ḍ* 'horn'	*daḍḍi* 'bank'	*pinḍup* 'frying pan'
k	*ko:li* 'side'	*akaṭi* 'like'	*aṛmuk* 'a creeper'	*ṭakka* 'kidney'	*neñkuḍ* 'pauling'
g	*go:li* 'jackal'	*do:ga* 'long rope'	*gong* 'wheat'	*ḍagga* 'story'	....
c	*cuva* 'leaf-basket'	*ceca:n* 'hawk'	*aṅgoc* 'towel'	*kucca* 'vegetable'	....
j	*juva* 'well'	*bo:ja* 'load'	*neñj* 'poison'	*rojja* 'always'	*neñikal* 'breath'

r	*ra:ṭa* 'a kind of small grain'	*cu:ra* 'handle of pot'	*gi:r* 'line or mark'	*karri* 'bamboo shoot'	....
ṛ	....	*cu:ṛa* 'cucumber'	....	....	....
l	*la:ṭi* 'tall'	*ce:la* 'shed'	*ko:l* 'shaft of arrow'	*palli* 'village'	....
m	*mittaḍ* 'arrow with blunt head'	*amor* 'we'	*uḍum* 'tick'	*rimma* 'lemon'	....
n	*netta* 'dog'	*ga:na* 'sugar-cane press'	*inen* 'today'	*minnal* 'spark'	....
ñ	....	*vañal* 'barren land'	*neliñ* 'moon'	*añña* 'father's sister'	....
v	*vali* 'wind'	*aval* 'husked rice'	*giv* 'ghee'	*avva* 'father's mother'	....
y	....	*ayal* 'woman'	*oklay* 'at one place'	....	....
s	*sanḍ* 'bull'	*asur* 'asura'	....	....	....
h	*hara* 'garland'	....	....	....	....

1.5.1. *Vowels*

(a) Short and long vowels do not contrast finally.

(b) Long vowels very seldom occur in the second syllable.

1.5.2. *Consonants*

(a) except *ñ*, *ṅ*, *y* and *ṛ* all consonants occur initially.

(b) except *ṅ* and *h*, all consonants occur intervocalically.

(c) except *ṛ*, *ṅ*, *s* and *h*, all consonants occur finally.

(d) There are no initial clusters in Parji.

(e) Final two consonant clusters occurring in the data are two in number.

-ñj	*neñj*	'poison'
-yk	*ayk*	'a kind of grain'

(f) Three consonant clusters are not many. The following clusters are noticed in the data:

-rṅg-	*virṅga*	'to be loosened'
-mbl-	*umbla*	'urine'
-ṛṅg-	*viṛṅga*	'chin'
-lṅg-	*velṅgur*	'horse radish'
-ytv-	*aytvar*	'Sunday'
-rñj-	*urñji*	'root'
-vṅg-	*kavṅgil*	'lap'
-nḍr-	*kunḍra*	'large pot'
-ndt-	*tendtal*	'parents'
-ñjk-	*gu:ñjkuḍ*	'smoke'
-nḍk-	*nanḍki*	'destroy'

II. Noun Morphology

2.0. The Parji nouns are a class of words, whose stems are inflected for one or more of the categories of gender-number and case.

2.1. In a noun construction the order of occurrence of the different lexical and grammatical categories is as follows:

Noun Stem + Gender–Number + Case

2.2. The stem may be simple (root), or complex (root + one or more derivative morphemes) or compound (more than one root).

(a) Example for simple stem: *pel* 'tooth'

(b) Example for complex stem: *polubted* 'village'
polubter 'villager'

(c) Example for compound stem: *cavḍi koṭal* 'scorpion'

2.3. *Gender*: All nouns denoting male persons belong to the masculine gender both in singular and plural. All others denoting female persons and non-persons such as objects, animals, etc. belong to the non-masculine gender.

This two-fold classification of gender in Parji is further strengthened by the morphological criterion of substitutability of demonstrative pronouns in the place of nouns.

Another criterion of contrast is available in the syntactic level which is matched to the contrast on the morphological level. The finite verb occurs with gender marker when it appears in predicate constructions and maintains the gender concord and number concord of the subject noun.

Present 'to go':	*Masculine*	*Non-masculine*
3rd sg:	ver-m-ed	ver-m-o
3rd pl:	ver-m-er	ver-m-ov

2.4. *Number*: There are two numbers in Parji. They are singular and plural. The singular is unmarked. The plural is marked by two groups of suffixes, one exclusively for masculine nouns, and another for non-masculine nouns.

The first and second person pronouns are distinguished for number and not for gender.

2.4.1. The plural morpheme mainly added to non-masculine has the following allomorphs:

/*-l*~*-il*~*-kul* ∞ *-ov*/

/*-l*/ occurs after vowel ending stems.

verbu 'wing' + *l* : *verbul* 'wings'

/*-il*/ occurs after consonant cluster ending stems.

kaṛc 'stick' + *il* : *kaṛcil* 'sticks'

/*-kul*/ occurs after stems ending in single consonants.

tel 'head' + *kul* : *telkul* 'heads'

/*-ov*/ occurs after stems denoting female kinship.

tal 'mother' + *ov* : *tallov* 'mothers'

2.4.2. The masculine plural marker is *-er*.

edo 'good man' + *er* : *eder* 'good men' (V→φ/--V)

2.5. *Case*: A category of affixes which form some sort of relationship between nouns and nouns, and nouns and verbs are called cases. There are six cases in Parji, viz. Nominative, Accusative, Instrumental, Dative, Locative-Ablative and Genitive.

2.5.1. *Nominative*: All noun stems which occur freely without overt case marker in the subject slot are in the nominative case.

Exx: *pa:p aṛmo* 'The child is crying'

mari ok polubti cender 'They went to another village'

2.5.2. A large section of the nouns, while occurring before case suffixes is different in their stem forms, from the (noun) forms occurring before the nominative case. These stem forms are called oblique forms. The oblique marker is *-t*.

2.5.3. The oblique stem is identical with locative-ablative and genitive in one class. Of course, in another class, the locative-ablative has a case suffix *-i* and the genitive *-o* after the oblique stem.

Exx: (Genitive) *merto evul* 'leaves of the tree'
(Loc./Ablat.) *polubti* 'at the village'

2.5.4. The accusative marker is optional in Parji. The uninflected stem can function as the object in a construction. It has two allomorphs, *-n* occurring after vowels and *-in* occurring after consonants.

Exx: *kukoṇḍi* 'panther' + *n* : *kokoṇḍin*
pa:p 'child' + *in* : *pa:pin*

2.5.5. *Instrumental:* In Parji, the instrumental case functions also in associative sense. It has two allomorphs: *-oḍ* occurring after consonants and *-noḍ* occurring after vowels

Exx: *ce:pidoḍ angoḍ aypur* 'Sweep the courtyard with the brush'
ga:y ja:ṭinoḍ pindel valikmo 'The cow is chasing out the flies with the tail'

2.5.6. *Dative:* The dative marker is *-ug*.

Ex: *pa:pug pe:l unṭip* 'Give the child a cup of milk'

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(Participants in the discussion following the seminar presentation of the first version of this paper: K. Murugaiyan, S. Agesthialingom, S. Rudin, A. Dhamotharan, A. Kamatchinathan and G. K. Panikkar.)

Phonology of Yerukala

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Yerukalas, the basket weaving Koravas of Andhra are the native tribal people. They are bilinguals in the sense that they speak their mother-tongue and Telugu, the regional language. According to the classification of the Census Report of 1961, Yerukala, also known as Korchi or Korava is a dialect of Tamil spoken by vagrants of Andhra Pradesh. The total population of Yerukalas comes to about 75,000 out of which 74,000 live in Andhra Pradesh and the rest in Madras and Mysore states. The Yerukalas call themselves as Kurru. The name Yẹrukala is given by Telugu people. There are five divisions among Kurru people based on their profession or nature of settled and nomadic life as :

i.	*Muccu kurru*	'sooth sayers'
ii.	*O:raṅ kurru*	'village Koravas who live in a place permanently'
iii.	*Na:ḍu tirra kurru*	'Koravas of nomadic type'
iv.	*Dabbala:ya kurru*	'Koravas who work on bamboos'
v.	*Kunju kurru*	'Koravas who make brushes'

Koravas of the second and third groups work on sticks of date-palms and not on bamboos.

The materials used for this analysis are collected from Yerukala informants hailing from Gunneri and Pallam in Andhra Pradesh. All the informants had their primary education in Telugu.

These people do not have a name for their language and if insisted, they say *kurru va:tta naṅga kolava:tta* 'Korava words are our caste words'.

1. Phonemic Inventory

There are eleven vowels and twenty consonants in the Yerukala speech. Nasalization of vowels is phonemic.

1.1. VOWELS

i	*i:*	*ɨ*	*u*	*u:*
e	*e:*		*o*	*o:*
		a *a:*		

and /˜/ nasalization

1.2. CONSONANTS

p	*t*	*ṭ*	*c*	*k*
b	*d*	*ḍ*	*j*	*g*
		s	*ṣ*	
	m	*n*	*ṇ*	
		l	*ḷ*	
		r		
	v			*y*

2. Contrasts

Minimal and sub-minimal pairs are given as illustrations for the contrasts.

2.1. VOWELS

i	*i:*	*ɨ*
ɨgisu 'unload'	*nikkɨdɨ* 'it stands'	*parri* 'pig'
i:sango:lɨ 'palmyra sticks'	*ni:kkɨ* 'to you'	*ki* 'hand'

u	*u:*	*ɨ*
uppu 'salt'	*kumpu* 'crowd'	*muncɨ* 'fill'
u:ru 'village'	*du:mene* 'comb'	*mu:su* 'close'

e	*e:*
ellu:ru 'kite'	*pellɨ* 'tooth'
e:liya:nu 'name of a bird'	*pe:rɨ* 'name'

o	*o:*	
oṭṭɨ 'eight'	*kolõ* 'caste'	*po:mbo* 'while going'
o:gɨ 'seven'	*ko:yi* 'hen'	*ya:ylo:* 'who'

a	*a:*	
aravõ 'Tamil'	*naḍɨ* 'center'	*toḍa* 'thigh'
a:va 'father'	*na:ṭu* 'mine'	*na:* 'I'

2.2. CONSONANTS

	p b v
parri	*tepi*
'pig'	'rice'
birri	*kaba:nɨ*
'quickly'	'immediately'
	gampa
	'basket'
	tempi
	'younger brother'
va:la:	*sevuga*
'come'	'ears'
	t d
ta:la:	*mo:ta:*
'give'	'beat'
da:dikurru	*pu:das*
'ancestors'	'goes'
	ṭ ḍ
ṭenga:ya	*na:ṭu*
'coconut'	'mine'
ḍabbay	*ma:ḍu*
'seventy'	'cattle'
	c j
cecla:	*uṭici*
'do'	'having left'
jiguru	*majjika*
'trap'	'buttermilk'

s ṣ

	igisla: 'get down'
	iṣṭõ 'desire'

k g

ke:rɨ 'hear, ask'	*ikũ* 'will be'
go:ru 'nail'	*a:gũ* 'will take place'

m n ṇ

ma:vã 'uncle'	*amma* 'mother'
na:nɨ 'I'	*annavũ* 'elder brother'
	kanna:lamu 'marriage'

l ḷ

ki:li 'below'	
na:ḷɨ 'day'	

r l

piri 'divide'	
pili 'tamarind'	

v	*y*
va:la: 'come'	*ma:vā̃* 'uncle'
ye:yo 'who'	*teliyū̃* 'know'

3. Allophones

Diphthongs [*ai̯*] and [*au̯*] are analyzed as /*ay*/ and /*av*/, wherein the non-syllabic [*i̯*] and [*u̯*] are treated as allophones to phonemes /*y*/ and /*v*/ respectively.

/*y*/ [*i̯*] occurs after a vowel and followed by a consonant, if it occurs medially.

[*y*] occurs elsewhere.

/*v*/ [*u̯*] occurs after a vowel and followed by a consonant if it occurs medially.

[*v*] occurs elsewhere.

/*b*/ [*b*] varies freely with [Φ] in the words denoting 'forty', 'fifty', etc.

(All the other phonemes including vowels and consonants have only one allophone each, which is represented by the phonemic symbol.)

4. Distribution of phonemes

4.1. VOWELS

Nasalization occurs with *e*, *e:*, *a*, *a:*, *o*, *o:* and *u*.

Exx:		
	ā̃:vlike:ri	'man'
	ẽ:ncu	'scold'
	sevā̃r	'oil'
	pedū̃	'lip'
	rõ:va:nka	'hairs'

so:rũki:	'right hand'
savundrõ perkaḍɨdi	'name of a bird'

Oral and nasalized vowels occur as given below.

Initial position

ã:, ẽ:, a, a:, u, u:, i, i:, e, e:, o, o:

Medial position

ã, ã:, ũ, õ, õ:, a, a:, i, i:, e, e:, o, o:, u, u:, ɨ

Final position

ũ, ẽ, õ, a, a:, i, i:, e, e:, u, u:, ɨ

4.2. CONSONANTS

Initially *ṇ*, *ṣ*, and *ḷ* do not occur, while *t*, *m*, *r* and *y* occur in the final position. Medially all the consonants occur either single or double.

4.3. CLUSTERS

4.3.1. There are two vowel clusters (which occur medially).

ẽ:u	*kẽ:uri*	'ragi'
õ:u	*nõ:ulu*	'name of a month'

4.3.2. Initially there is no consonant cluster, but medially two consonant clusters and three consonant clusters are found.

4.3.2.1. *Three consonant clusters*

bbl	*dabbla:ya*	'a sect of Koravas'
ndr	*savundrõperkaḍɨdi*	'name of a bird'
ṇḍḷ	*poṇḍḷɨma:rɨ*	'wives'
rts	*artsu*	'having cut'
yn	*po:ynde*	'have gone'

4.3.2.2. *Two consonant clusters*

kk	*na:kkɨ*	'to me'
kḍ	*likḍukunju*	'name of a bird'
kr	*va:ra:kre*	'you are coming'
cc	*macca:ḍa*	'brother-in-law'
cl	*cecla:*	'do'
ṭṭ	*kaṭṭu*	'bundle'
ṭḷ	*ta:ṭḷi*	'from that place'
ṭṇ	*poṭṇeraka*	'feather'
ḍḍ	*aḍḍi*	'all'
ḍr	*ka:va:ḍru*	'name of a caste'
ḍs	*eḍsi*	'rice'
tt	*atte*	'aunt'
ts	*itsɨla*	'sell'
tm	*iravatmu:ḍu*	'twenty three'
tn	*etna*	'how many'
tr	*citri*	'name of a month'
dd	*kuddi*	'neck'
dl	*sadlu*	'name of a grain'
pp	*muppay*	'thirty'
bb	*vardabba*	'inner side of the stick'
bṭ	*tubṭi*	'shawl'
mp	*gampa*	'basket'
mb	*tembi*	'brother (younger)'
mm	*amma*	'mother'
nn	*gunne:ri*	'Gunneri'

nk	*pilanka:*	'tamarind fruit'
ng	*nanga*	'elder brother's wife'
nc	*muncla:*	'fill'
nj	*anjɨ*	'five'
nt	*antuko:*	'for what'
nd	*vando:su*	'have come'
ṇṇ	*taṇṇi*	'water'
ṇṭ	*keṇṭu*	'news'
ṇḍ	*uṇḍɨ*	'one'
rr	*kurru*	'Koravas'
rl	*ke:rla:*	'ask'
rs	*ersi*	'rice'
rk	*arku*	'will cut'
ry	*marya:de*	'respect'
ll	*kolli*	'knife'
ḷḷ	*aḷḷa*	'weave'
vl	*ã:vlike:rɨ*	'male'
vḍ	*a:vḍuku*	'castor'
yy	*tayyi*	'name of a month'

5. Vocabulary

(The numbers in parenthesis indicate the entries in *Dravidian Etymological Dictionary* by Burrow and Emeneau.)

1.	*akka*	'elder sister'	(24)
2.	*agise:la*	'invite'	(240)
3.	*agula*	'weep'	(240)
4.	*aḍḍɨ*	'cook'	(66)

5.	*ati/ati*	'it'	(1)
6.	*atte*	'aunt'	(121)
7.	*anji*	'five'	(2318)
8.	*anna/annavũ*	'elder brother'	(112)
9.	*amma*	'mother'	(2318)
10.	*ay*	'having become'	(282)
11.	*araki:*	'palm'	(272)
12.	*araṭi*	'plantain'	(4403)
13.	*aravay*	'sixty'	(2051)
14.	*a:gu*	'will become'	(282)
15.	*a:ri*	'six'	(2051)
16.	*a:vḍuku*	'castor'	(302)
17.	*ã:vlike:ri*	'male'	(3427)
18.	*ikradiki*	'to sell'	(4448)
19.	*igisi*	'having got down'	(426)
20.	*itsla*	'sell'	(4448)
21.	*irdi*	'twenty'	(401)
22.	*irla*	'be'	(407)
23.	*illa*	'not'	(2107)
24.	*i:n/i:na:k*	'gives birth to'	(473)
25.	*i:pu*	'hip'	(380)
26.	*uko:la*	'sit down'	(1438)
27.	*uṭlu*	'name of a month'	(648)
28.	*uṇḍi*	'one'	(836)
29.	*u:ḍu*	'house'	(4419)
30.	*eku*	'climb'	(653)
31.	*ecu*	'place'	(723)

32.	*edir*	'opposite'	(680)
33.	*enabay*	'eighty'	(670)
34.	*emigu/emiga*	'bone'	(714)
35.	*ey/e:ncu*	'scold'	(3212)
36.	*eraka*	'finger'	(2133)
37.	*erranga*	'being red'	(700)
38.	*ersi*	'rice'	(178)
39.	*ersõ*	'anger'	(664)
40.	*oncɨla*	'bend'	(4348)
41.	*oṭṭɨ*	'eight'	(670)
42.	*oḍigɨ/oḍe:vo:*	'body'	(501)
43.	*ombedɨ*	'nine'	(862)
44.	*orakõ*	'sleep'	(606)
45.	*orugu*	'stomach'	(4299)
46.	*orugu*	'firewood'	(4467)
47.	*olikkɨ*	'light'	(4524)
48.	*oleki/olyũ*	'grow'	(4340)
49.	*o:ga*	'sun-shine'	(4540)
50.	*o:gɨ*	'seven'	(722)
51.	*o:gonda*	'seven hundred'	(722)
52.	*o:ḍḷa*	'run'	(877)
53.	*kannuga*	'eyes'	(973)
54.	*kartaṇṇi/kallɨ*	'toddy'	(1158)
55.	*ka:lava:*	'canal'	(1239)
56.	*ka:lɨ*	'leg'	(1238)
57.	*kucɨ*	'to pound'	(1536b)
58.	*kuṭṭi*	'girl'	(1390)

59.	*kuḍila*	'drink'	(1378)
60.	*kurru*	'Koravas'	(1548)
61.	*kegõ*	'neck'	(1151)
62.	*keccu*	'learn'	(1090)
63.	*keppistandadu*	'taught'	(1090)
64.	*ke:payõ*	'old man'	(1315)
65.	*ke:mbe*	'old woman'	(1315)
66.	*ke:rla*	'hear, ask'	(1617)
67.	*konga/konga:ku*	'buy'	(1788)
68.	*kolli*	'knife'	(1722)
69.	*ko:yi*	'hen'	(1862)
70.	*ko:lɨ*	'stick'	(1852)
71.	*ga:di*	'basket (to store grain)'	(1011)
72.	*ga:li*	'wind'	(1258)
73.	*ginni*	'vessel'	(1291)
74.	*guṇṭa*	'lake'	(1389)
75.	*gu:ve*	'owl'	(1552)
76.	*gedda*	'donkey'	(1149)
77.	*go:ru*	'finger nail'	(479)
78.	*go:vaḍi*	'coccinia Indica'	(1861)
79.	*cecla*	'do'	(1628)
80.	*ṭe:nga:*	'coconut'	(2806)
81.	*ḍabbay*	'seventy'	(772)
82.	*taṭṭe*	'flat'	(2463)
83.	*taṇṇi*	'water'	(2473)
84.	*tangasi*	'younger sister'	(2445)

85.	*tansɨ*	'gave'	(2526)
86.	*ta:pō̃*	'father, grand-father'	(2435)
87.	*ta:la*	'give'	(2529)
88.	*tinla*	'eat'	(2670)
89.	*tipiṇi*	'returned'	(2655)
90.	*ti:gili*	'below'	(2597)
91.	*ti:ṭṭi*	'make sharp'	(2678)
92.	*tunaga*	'bits'	(2707)
93.	*tegu*	'buy'	(2829)
94.	*tembi*	'younger brother'	(2513)
95.	*teliyũ*	'know'	(2825)
96.	*tokuḍu*	'hatching'	(2861)
97.	*toḍa*	'thigh'	(2704)
98.	*tombay*	'granary'	(2910)
99.	*da:digurru*	'ancestors'	(2580)
100.	*nakkava:ḷu*	'Koravas'	(2981)
101.	*naḍala*	'walk'	(2957)
102.	*nanga*	'elder brother's wife'	(2445)
103.	*nambe*	'we (incl.)'	(3019)
104.	*nalabay*	'forty'	(3024)
105.	*nalɨpɨ*	'black'	(2990)
106.	*na:/na:nu*	'I'	(4234)
107.	*na:nga*	'we (excl.)'	(4231)
108.	*na:liga*	'tongue'	(3009)
109.	*na:lɨ*	'four'	(3024)
110.	*na:va:riki*	'tonight'	(2102)

111.	*nɨ:nga*	'you'	(3055)
112.	*ne:tsɨ*	'yesterday'	(3109)
113.	*nosulu*	'forehead'	(3609)
114.	*no:vakadɨ*	'pains'	(3143)
115.	*pange:ricinna:y*	'girl (young)'	(3608)
116.	*pange:rimaga*	'girl'	(3608)
117.	*paṭɨ*	'hamlet'	(3199)
118.	*paṭṭe*	'flat piece'	(3207)
119.	*pani*	'work'	(3209)
120.	*panri/paṛrɨ*	'pig'	(3326)
121.	*piḍila*	'catch'	(3412)
122.	*pilipa:gõ*	'tamarind'	(3546)
123.	*puṭḷu*	'baskets'	(3500)
124.	*pulɨsu*	'sauce'	(3546)
125.	*peca ma:ṭe*	'(you) cannot turn'	(3516)
126.	*pedũ*	'lip'	(3609)
127.	*pelluga*	'teeth'	(3288)
128.	*pe:nɨ*	'louse'	(3643)
129.	*pogama:rɨ*	'smoke like'	(3151)
130.	*pogɨdɨ*	'sun'	(3724)
131.	*poṭekuṭṭi*	'female'	(3608b)
132.	*poṇḍɨ*	'wife'	(3608)
133.	*potɨ*	'ten'	(3236)
134.	*po:ttɨkuṭṭi*	'male young one'	(3747)
135.	*po:ḍḷa*	'place, keep'	(3743)
136.	*po:la*	'go'	(3734)
137.	*baḍḍo:*	'cloth'	(3207)

138.	*bandil doṭṭi*	'a proper name'	(3219)
139.	*barri ma:ḍu*	'buffalo'	(699)
140.	*ba:ga*	'well, good'	(4368)
141.	*ba:y*	'well'	(3703)
142.	*bi:raka:yi*	'a king of gourd'	(3467)
143.	*beṇḍaka:yi*	'lady's finger, okra'	(4509)
144.	*bera*	'big'	(3613)
145.	*bojji*	'belly'	(3665)
146.	*makiri*	'cage/loom'	(3775)
147.	*maga*	'daughter'	(3893)
148.	*magũ*	'son'	(3748)
149.	*macca:ḍa*	'brother-in-law'	(4183)
150.	*maṇa:gõ*	'husband'	(3911)
151.	*ma:vã*	'uncle'	(3945)
152.	*miḍɨvu*	'back'	(4058)
153.	*mi:nɨ*	'fish'	(3999)
154.	*mi:sõ/me:sõ*	'moustache'	(3996)
155.	*mukku*	'nose'	(4122)
156.	*mugucu*	'fill'	(412)
157.	*muguru*	'hair'	(3854)
158.	*munci giṇḍiva:*	'bring after having filled'	(4001)
159.	*muppay*	'thirty'	(4147)
160.	*mu:ḍɨ*	'three'	(4147)
161.	*meccinci*	'wife's younger sister'	(4189)
162.	*meru maga*	'daughter-in-law'	(3860)

163.	*meru magũ*	'son-in-law'	(3860)
164.	*me:lɨ*	'high'	(4173)
165.	*mottu*	'beat/kill'	(4201)
166.	*mo:ka:lɨ*	'ankle'	(4093)
167.	*mo:ki:*	'elbow'	(4093)
168.	*ya:ba*	'what'	(2318)
169.	*yeruku/yuruka*	'sooth-saying'	(265)
170.	*roṇḍɨ/reṇḍɨ*	'two'	(401)
171.	*vaḍḷu*	'paddy'	(4325)
172.	*va:ttɨ ko:lu*	'sticks used for basket weaving'	(4887)
173.	*va:la*	'come'	(4311)
174.	*saduvardɨkɨ*	'to read'	(1918)
175.	*sikɨḍika:yi*	'country beans'	(2058)
176.	*si:kaṭṭi*	'darkness'	(2144)
177.	*seḍḍa*	'bad'	(1614)
178.	*senika:ylu*	'ground-nuts'	(2018)
179.	*sevuga*	'ears'	(1695)
180.	*se:ttugoṇḍɨ*	'having added together'	(2310)
181.	*soṇḷa*	'tell/speak'	(2335)

(Participants in the discussion following the seminar presentation of the first version of this paper: N. Kumaraswami Raja, G. K. Panikkar, K. Balasubramanian, A. Dhamotharan, A. Kamatchinathan, Sp. Thinnappan and S. V. Shanmugam.)

Dravidian Numeral Constructions

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0.1. Methodological Steps

The aim of the present paper is not to reconstruct the phonological shapes of the numeral morphemes and their alternants, but only to investigate the underlying structure of numeral phrases in Dravidian. For this the method adopted here is as follows: Firstly the combinatorial possibilities of numerals of a dialect of Malayalam is studied and six formulae are formulated by which all numeral expressions can be derived. Secondly these formulae are tested with Tamil and Kannada and it is found that they are powerful enough to generate all numeral constructions of Tamil and Kannada, if slight modifications are made here and there especially in the restriction rules.[1] Since the motive is to generate all numeral constructions which are used at present, no attempt is made to demarcate the Sanskrit loans and also the fractions, *ka:l* and *ara* which might be later semantic extensions of the body parts. The third step was a comparative reconstruction of the basic numeral morphemes of Proto-Dravidian and it has to be admitted that the present author was not able to

[1] This step is not included here, since it is found to be almost a repetition.

work it out in detail.[2] The fourth step is to posit rules for the combinations of the PDr. numeral morphemes based on the present day structure of combinations.

1.1. The inventory of Malayalam numerals

The basic numeral morphemes are only seventeen in number.

ma:ka:ṇi[3]	'one by sixteen'
ka:l	'a quarter'
ara	'half'
toḷ[4]	'nine by ten'
onnu	'one'
ranṭu	'two'
mu:nnu	'three'
na:l	'four'
añcu	'five'
a:ṟu	'six'
e:ḻu	'seven'
eṭṭu	'eight'
pattu	'ten'
nu:ṟu	'hundred'

[2] As for arriving at the phonological shapes and rules of alternations without having a controversy, the grammars of all languages have to be obtained. Since our aim is to find the structure of combinations, this does not affect our goal.

[3] *ara ma:ha:ṇi* '1/32' and *ka:l ma:ha:ṇi* '1/64' are grammatically possible but not found in common use and hence these combinations are left out; however formula I can generate them if the values of *a* and *f* are slightly modified.

[4] *on, toṇ* and *toḷ* are considered here as allomorphs of *toḷ*.

a:yiram	'thousand'
leṭṣam	'lakh'
ko:ṭi	'crore'

1.2. All other numeral expressions are formed by two types of combinations, (1) Multiplication and (2) Summation.

1.2.1. *Multiplication*

Formula No. I

$a \times f$

$a = 1/2, 3$

$f = 1/4$

E.g.	1/2	1/4	
	ara	*ka:l*	= 1/8
	3	1/4	
	mu	*ka:l*	= 3/4

Formula No. II

$A \times 10^n$

A=9/10, 1, 2, 3, 4, 5, 6, 7, 8, 10, 100, 1000, 100000
n=1, 2, 3, 5, 7

Restrictions:

1) If A=10, $n \neq 1, 2$
2) If A=1, $n \neq 1$
3) If A=9/10, $n \neq 1, 2, 3$
4) If A=100, 1000, 100000, $n = 7$

E.g. $9/10 \times 10^1 = 9/10 \times 10$ = *on & patu*

$9/10 \times 10^2 = 9/10 \times 100$ = *toṇ & nu:ṟu*

$9/10 \times 10^3 = 9/10 \times 1000$ = *toḷ & a:yiram*

$1 \times 10^2 = 1 \times 100$ = *oru & nu:ṟu*

$1 \times 10^7 = 1 \times 10000000$ = *oru & ko:ṭi*

nu:ṟu, a:yiram, leṭṣam and *ko:ṭi* are basic numeral morphemes and hence to express these senses either they can be used alone or by multiplying each by one.

$2 \times 10^1 = 2 \times 10$ = *iru & patu*

$2 \times 10^7 = 2 \times 10000000$ = *rāṇṭu & ko:ṭi*

$6 \times 10^2 \times 6 \times 100$ = *aṟu & nu:ṟu*

$10 \times 10^5 = 10 \times 100000$ = *pattu & leṭṣam*

$1000 \times 10^7 = 1000 \times 10000000$ = *a:yiram & ko:ṭi*

Formula No. III

$X \times 10^N \times 10^n$

$X \times 9/10, 2, 3, 4, 5, 6, 7, 8$

$n = 3, 5, 7$

The values of N are as follows:-

1) If $n = 3, 5,$ $N = 1$

2) If $n = 7,$ $N = 1, 2, 3, 5$ except when $X = 9/10$

3) If $X = 9/10$ and $n = 7,$ $N = 1, 2, 3$

E.g. $9/10 \times 10^1 \times 10^3 = 9/10 \times 10 \times 1000$ =
on & patin & a:yiram

$9/10 \times 10^3 \times 10^7 = 9/10 \times 1000 \times 10000000$ =
toḷ & a:yiram & ko:ṭi

$2 \times 10^1 \times 10^7 = 2 \times 10 \times 10000000$ =
iru & patu & ko:ṭi

1.2.2. *Summation*

Formula No. IV

Q_1+R_1

$Q=1, 2, 3, 4, 5, 6, 7, 8, 10$

$R=1/4, 1/2$

Restriction: When $R_1=1/4$, a clitic *-e:* occurs in between Q_1 and R_1

E.g. 4+1/4 = *na:l+e: & ka:l*

10+1/4 = *patt+e: & ka:l*

1+1/2 = *onnu & ara*

8+1/2 = *eṭṭu & ara*

Formula No. V

Q_2+R_2

$Q_2=10, 100, 1000$

$R_2=1, 2, 3, 4, 5, 6, 7, 8, 10$

Restriction:

$Q_2 \neq R_2$

E.g. 10+1 = *patin & onnu*

100+2 = *nu:ṟṟi & ranṭu*

1000+3 = *a:yiratti & mu:nnu*

1000+10 = *a:yiratti & pattu*

1.2.3. *Multiplication and summation*

All other numeral expressions are formed by the combination of multiplication and summation formulae.

Formula No. VI

$$\pm Z + K \times 10^{n} \pm K \times 10^{n-1} \pm K \times 10^{n-2} \pm K \times 10^{n-3} \ldots\ldots\ldots$$

$$\ldots\ldots \pm K \times 10^{n-(n-1)} + K \times 10^{n-n} \pm F \pm G$$

The symbol _ in ± indicates the absence of a unit, and here it does not mean 'minus'.

$10^{n(-n-1)} = 10^{1}$

$10^{n-n} = 10^{0}$

Z = 10, 100, 1000

n = 1, 2, 3, 5, 7

F = 1, 2, 3, 4, 5, 6, 7, 8

G = 1/2, 1/4

K = 9/10, 1, 2, 3, 4, 5, 6, 7, 8, 10, 100, 1000, 10000, (Q_1+R_1), (Q_2+R_2), $(A \times 10^{n})$, $(X \times 10^{N} \times 10^{n})$, $(A \times 10^{n})+F$, $(X \times 10^{N} \times 10^{n})+F$, $(X + 10^{N} \times 10^{n})+(A \times 10^{n})$

The variables of K will be marked by K_1, K_2, K_3, etc.

Restrictions:

1) When $n=1$, $K \neq 1$
2) $K < 10^{n}$
3) Z occurs only when the expression denotes value 19 and values in between 100 and 200 and in between 1000 and 2000.
4) When $Z=10$, K is equal to 9/10 and $n=1$ and the only possible expansion is $Z + K \times 10^{n} \pm G$.
5) 10^{n-n} occurs only when $K = 10$.

6) If the n of $K \times 10^n$ is less than 7, and if the value of K is equal to $(A \times 10^n)$, then the n of $(A \times 10^n)$ will always be 1.

7) In $K \times 10^n$, K can take the value $(Q_1 + R_1)$ only when n=5 or 7.

8) If n=7 or 5, (n—1) does not occur.

9) 10 will be written as 10^1 only in multiplication.

E.g. 9 1/2= *on & patu & ara*

$9/10 \times 10 + 1/2$

$9/10 \times 10^1 + 1/2$

$K_1 \times 10^n + G$

224= *iru & nu:ṟṟi & iru & patti & na:lu*

$2 \times 100 + 2 \times 10 + 4$

$2 \times 10^2 + 2 \times 10^1 + 4$

$K_1 + 10^n + K_1 \times 10^{n-1} + F$

6724 1/2= *a:ṟu & a:yiratti & eḻu & nu:ṟṟi & iru & patti & na:l & ara*

$6 \times 1000 + 7 \times 100 + 2 \times 10 + 4 + 1/2$

$6 \times 10^3 + 7 \times 10^2 + 2 \times 10^1 + 4 + 1/2$

$K_1 + 10^n + K_2 \times 10^{n-1} + K_3 \times 10^{n-2} + F + G$

836218= *eṭṭu & leṭṣatti & mu & patti & a:ṟu & a:yiratti & iru & nu:ṟṟi & patin & eṭṭu*

$8 \times 100000 + (3 \times 10) + 6 \times 1000 + 2 \times 100 + 10 + 8$

$8 \times 10^5 + (3 \times 10^1) + 6 \times 10^3 + 2 \times 10^2 + 10 \times 10^0 + 8$

$$8\times10^{5}+(A\times10^{n})+F\times10^{3}+2\times10^{2}+10\times10^{0}+8$$

$$8\times10^{5}+(A\times10^{n})+F\times10^{3}+2\times10^{2}+10\times10^{0}+8$$

$$K_1\times10^{n}+K_2\times10^{n-2}+K_3\times10^{n-3}+K_4\times10^{n-n}+F$$

600120000000 = *aṟu* & *patin* & *a:yiratti* & *pant* & *raṇṭu* & *ko·ṭi*

$$(6\times10\times1000)+(10+2)\times10000000$$

$$(6\times10^{1}\times10^{3})+(10+2)\times10^{7}$$

$$(X\times10^{N}\times10^{n})+(Q_2+R_2)\times10^{7}$$

$$K_1\times10^{n}$$

2.1. Inventory of PDr. Numerals

By the comparative reconstruction only eleven numeral morphemes can be set up for Proto-Dravidian. All morphemes except *nu:ṟu* have two sets of alternants – – adjectivals and nominal stems. The nominal stems are those which occur before a nominalizing suffix (*-t-* or *-k-*). It is to be noted that a regular occurrence of these adjectival forms can be found only when it occurs as the first constituent in a numeral phrase which is constituted by a multiplication formula. It can be further observed that in summation formula, only case bases are found as first constituents. In the case of *e:ḻu* and *ca:ṟu* one may doubt whether the C. B. forms are with or without the nominalizing suffix. But the pattern shows that they have to be reconstructed with a nominalizing suffix, but whether it is *-t-* or *-k-* is not inferable. As for *nu:ṟu* the multiplication formula shows that it cannot occur as a first constituent of a phrase constituted by multiplication and hence no adjectival form is found. A nominalizing suffix is found only for those case bases which have corresponding adjectival forms. Thus the cognates together with the pattern show that a nominalizing suffix is absent for *nu:ṟu*. The PDr. numerals are as follows:

	Adj.	*C. B.*		*St. for C. B.*
ONE				
	oru [*C*	*onṯu*		*on* [*t*
	o:r [*V*	*orku*		*or* [*k*
TWO				
	iru [*C*	*iraṇṭu*	*iraḷ* >	*iraṇ* [*t*
	i:r [*V*			*iraṭ* [elsewhere
THREE				
	mu [*C*	*mu:nṯu*		*mu:n* [*t*
	mu: [*V*			
FOUR				
	nalu [*C*	*na:lku*		*na:l* [*k*
	na:l [*V*	*na:nku*		*na:n* [*k*
FIVE[5]				
	caim [*C*	*caimtu*		*caim* [*t*
	cai [*V*	*caimku*		*caim* [*k*
SIX				
	caṟu [*C*	*ca:ṟutu*		*ca:ṟu* [*t/k*
	ca:ṟu [*V*			
SEVEN				
	eḻu [*C*	*e:ḻtu*		*e:ḻ* [*t/k*
	e:ḻu [*V*			
EIGHT				
	eṇ [*V* & *C*	*eṭṭu*		*eṭ* [*t*
				[*eḷt* > *eḷṭ* > *eṭṭ*]
NINE				
	toṇ [*C*	*toṇṭu*		*toṇ* [*t*
	toḷ [*V*			

[5] Instead of *c* it seems *y* is also equally probable for the numerals of five and six.

TEN	*pan [V*	*pantu*	*pan [t*
		pattu	*pat [t*
		patu	
HUNDRED			
		nu:ṟu	

2.2. *The structure of combinations*

These numerals can be classified into three groups A, B and C. The numerals having values from 1 to 9 fall under group A, the numeral for ten under group B and that for hundred under group C. Here also the sequential structure have to be posited as one of multiplication and summation. In the following formulae,

A=1 to 9

B=10

C=100

2.2.1. *Multiplication*

Formula	I	A×B
Formula	II	A×C
Formula	III	B×C
Formula	IV	A×B×C

2.2.2. *Summation*

Formula	V	C+B
Formula	VI	C+A
Formula	VII	B+A
Formula	VIII	C+B+A

2.2.3. *Multiplication and Summation*

Formula IX $A \times B + A$

Formula X $A \times C + A$

Formula XI $A \times C + B$

2.2.4. The number of formulae can be reduced by introducing restriction rules. For example formulae V to VIII can be consolidated as $\pm C \pm B \pm A$. Restriction: The minimum number of constituents should always be two. Formulae I and II can be combined as $A \times \begin{bmatrix} B \\ C \end{bmatrix}$.

2.2.5. Whether a given sequence is derived by multiplication or by summation can be easily inferred by observing the values of its constituents. In multiplications, the linear arrangements of the constituents will be from the lowest to the highest, i. e., the values of the constituents will be in an increasing order, while in summation the order will be decreasing. If both increasing and decreasing orders are found in a sequence, then it is one of multiplication and summation.

3.1. Validity of Mathematical Interpretation

The fact that numeral phrases in Dravidian are formed by multiplications and summations have already been pointed out by grammarians, and the only addition here is excavating all the basic facts of compounding and thus formulating rules by which generations of all possible numeral combinations can be brought out. The term 'generation' is used consciously, since generation is possible in certain areas without transformations. This exemplifies the fact that all generative grammars need not be transformational. In a limited area even phrase structure will be generative.

3.1.1. From a purely formalistic angle the present interpretations, though mathematical, may be questioned due to its semantic base. A reasonable dependence on meaning is not ruled out in any linguistic analysis. Mathematical interpretation has an advantage of generating an infinite number of grammatical combinations with a limited set of rules. A similar technique is adopted by transformationists also, though the types of generative rules which they adopt are different.

4.1. Comparative method and generative techniques

How far these structural rules can be made use of in comparative methods has to be looked into. There are two structures in languages, for which I use the terms 'core structure' and 'verbal structure'. Core structure means the inventory of generative rules and their interrelationships, while the verbal structure is only a phonetic manifestation of the core structure. A change in the verbal structure need not always affect the core structure. But it does not mean that changes in the sphere of verbal structure cannot alter the interwoven patterns of core structure. The point which has to be emphasized here is that all changes in the verbal structure will not make corresponding changes in the core structure. In short, core structure is more stable than the verbal structure.

4.1.1. In comparative methods, we give more emphasis to the phonemic correspondences which are more akin to the verbal structure. Marr, the Russian philologist has pointed out the limitations of a linguistic reconstruction based only on the phonological shapes of cognates. He suggests that more weight should be given to the meaning aspect, cultural

patterns of the speakers, the relatedness of folktales, folksongs and even the metrical system. For him the history of a language has a direct relationship with the socio-economic developments of the society. This, of course, is from the point of view of semantics, anthropology, folkloristics and Marxism. But even from the point of view of linguistics, by delimiting our attention on the reconstruction of verbal structure we are not now exploring all the possibilities of comparative methods. Attempts have to be made for the reconstruction of the core structure and more emphasis has to be made for the comparison of core structures in deciding the interrelationships of related languages. Theoretically two languages may exhibit more resemblance in their verbal structures, but their core structures may not be so close. For illustration, let us take three related languages A, B and C. Let the results of comparison of A with B and C be as follows: The verbal structures of A and B are more closer than those of A and C, while the core structures of A and C are more closer than those of A and B. Since core structures are more basic, languages A and C have to be considered as more closer than languages A and B. It is found that the rules of combinations of Malayalam numerals are largely applicable to Tamil, while for Kannada some more modifications have to be made. Thus from the core structural point of view one can infer that Malayalam is more related to Tamil than Kannada. Now one may argue that as for Tamil and Malayalam the same result will be obtained, even if the comparison is based on verbal structures. Assume for the moment that many of the Malayalam basic vocabulary items are replaced by Hindi loans after a hundred years, while Tamil and Kannada retain the present cognates. By this one cannot establish that Tamil is more closer to Kannada than

to Malayalam as long as the underlying patterns of core structures remain unaltered.

4.1.2. Now it is quite evident that the approach suggested is highly useful in comparative methods. Since it explores the basic core structure of languages, it is possible to reconstruct the basic core of the proto-language. The degree of relationships between related languages can be inferred not only by the comparison of verbal structure but also by the comparison of core structure.

Thus to make comparisons in both the structures, generative grammars are the best suited. The generative rules may serve as a scale of comparison for the degree of relatedness.

4.1.3. The comparison of verbal structures need not always warrant a correct picture. The cognates in turn are elements of verbal structures. If so, how far is the technique of glottochronology valid? Due to span of time changes occur in both the structures. If the external forces remain constant, changes in both the structures may be regular and hence for measuring time depth either the verbal structure or the core structure can be made use of. But the core structure is not so susceptible for quantification, and hence the verbal structure is preferred. However the verbal structure is more liable to changes by external forces. In the history of all languages such sudden changes due to external forces might have occurred, but it may not be always true that if the time-depth calculation is for a wider span of time such changes will not alter the result much. During the history of a particular language, it is possible that the number of times at which such changes occurred may be more in comparison to its neighbouring related language. Then the calculation

for time depth of their separation will surely be affected. In such instances, a comparison of core structures can be utilized as a corrective measure. Thus to make the technique of glottochronology more effective, the results obtained by cognate calculations have to be checked with the results obtained by comparing the core structures—though in the second case an absolute measurement is not possible due to the non-availability of well-defined parameters.

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(Participants in the discussion following the seminar presentation of the first version of this paper: N. Kumaraswami Raja, S. Agesthialingom, S. V. Shanmugam, K. Balasubramanian, P. S. Subrahmanyam and K. M. Prabhakara Variar.)

Proto-Dravidian nr in Telugu

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1. **nṟ* has got four kinds of developments in Telugu, viz. (1) *nṟ* > *ṇḍ*, (2) *nṟ* > *nd*, (3) *nṟ* > *ṇḍr* and (4) *nṟ* > *ṟ*(> *r*)

1.1. *nṟ* > *ṇḍ* (~*ḍ* after long vowels in literary Telugu)

(1) *ũ:ḍu* 'to be planted, fixed', *u:ḍucu* 'to transplant', *u:nu* 'to serve as a support'; Ta. *u:ṉṟu* 'to be fixed, strike root', Ma. *u:nnuka* 'to be fixed, rooted', Ka. *u:ṟu* 'to put in the ground, plant, set firmly (as flags, etc.)', *u:ḍu* 'a support', Tu. *u:nduni* 'to press down', *u:ḍuni*, *u:ḍa:vuni* 'to fix', Pa. *untip* 'to plant', Ga. (Oll.) *uṇḍup* 'to transplant', Kur. *u:dna:* 'to fix a closed door, shutter, etc. (by a bolt, latch, lock, stay)', *uddᵅrna:*/*udᵅrna:* 'to lean upon a walking stick', Malt. *udure* 'to lean upon' (*DED* 650). PDr. **u:n-ṟ-*

(2) *eṇḍa* 'sun shine, sun, heat of the sun', *eṇḍu* 'to be heated by exposure to the sun, dry up, evaporate', *eṇḍugulu* 'grains exposed to the sun for being dried', ? elli 'tomorrow' (*DED* 719), *elamu* 'to be shiny, splendid'; Ta. *eṉṟu* 'sun', *eṉṟu:ḻ* 'sun shine, sun, summer', *el* 'lustre, splendour, light, sun, day time', *elli* 'sun, day time', Ma. *ilakuka* 'to shine, twinkle', Pa. *nendi*, (NE) *neṇḍi* 'heat of the sun', Go. *addi:*, (A) *eddī* id. (*DED* 738). PSCDr. **enṟ-* < ***el-nt-*

(3) *oṇḍu* 'one thing'; Ta. *o<u>n</u><u>r</u>u* 'one (neut.)', Ma. *onnu* id., Ko. *o<u>d</u>* 'one', *pan on<u>d</u>* 'eleven', *oj* 'one thing alone', To. *wī<u>d</u>* 'one', Ka. *ondu* 'one', Koḍ *ondī* id., Tu. *oñji* id., *onduni* 'to gather, accumulate', Go. *undi:*, (M) *onḍ*, (L) *uṇḍi:* 'one', Koṇḍa *un<u>r</u>i* (*uṇḍri*) 'one woman or thing', Kur. *o:n*, *o:nd* 'one whole, one full', Malt. *-ond* 'one (thing)' (*DED* 834d). PDr. **on<u>r</u>-*

(4) *koṇḍa* 'mountain, hill, rock', *guṇḍu* 'rock' (*SAN*); Ta. *ku<u>n</u><u>r</u>am*, *ku<u>n</u><u>r</u>u* 'hill, mountain', *ku<u>n</u><u>r</u>avar* 'mountaineers', Ma. *kunnam* 'mountain', *kunnu* 'hill, mountain', *kunnan* 'mountaineer', To. *küd-xas*, *kü<u>d</u>s* 'large rock standing by itself', Ka. *koṇḍa* 'hill, mountain' (<Te.), Koḍ *kundī* 'mountain', Pa. *kondi* 'mountain' (*DED* 1548). PSCDr. **kun<u>r</u>-/*kon<u>r</u>-*

(5) *kon<u>r</u>ukaḷ*, *kon<u>r</u>ukalu*[1] (Inscription) 'sons, young men', *kuṇḍika:ḷḷu*[2] (Inścr.) 'son (hon.), prince (hon.)', *koṇḍuka* 'young younger brother', *koṇḍika* 'young boy, girl, small, little'[3], *gunna* 'young of an animal', *ku:na* 'infant, young of an animal', *ku:ntu<u>r</u>u* (Inscr.) / *kū̃:turu* (lit.) 'daughter' (originally 'young girl'; see *SAN*), *ku:tu* 'daughter' (Inscr.); Ta. *kuñcu* 'young of birds and various animals', Ma. *kuññu*, *kuñci* 'young, small, infant', Ko. *kunj* 'children as given by God,

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[1]For abbreviations, see *TVB*. Abadanakaram Inscription, 8th century (11, 26, 28, 30), ed. by K. Iswaradutt, Coconada, 1934.

[2]*erikal muttura:julla kuṇḍika:ḷḷu(ni) vabuka:nu* 'for the merit of the son (hon.) of Erikal Muthurajulu' (Erragudipadu Inscription 1, 3, *Ep. Ind.* XXVII. pp. 220–251). *Kuṇḍika:ḷḷula iccina pannasa* 'the pannasa given by the prince (hon.)' *ibid.* 1–11.

[3]*koṇḍuka yayyũ dadda guṇambulandũ bedda* (*Bhr.A:.* 3–70), *koṇḍukana:ṭi para:krama guṇa sampada* (*ibid.* 5–259), *va:nikim goṇḍukava:ni* 'his younger brother' (*ibid.* 4–113). *koṇḍikava:ni namma pagago:lu* (*Ku. Sa.* 10–163), *koṇḍikamacca* 'little spot' (*Pa:ṇḍ.* 2–60). See also *SAN*, and *V̇N* (Vavilla Nighaṇṭuvu).

men as children of God', *kun* 'small', Ka. *kunni* 'young of an animal, esp. a young dog', *gunna* 'smallness', Koḍ. *kuññi* 'child', *ma:ṅuññi* n. pr. 'bull in mythology', Kol. *ku:na* 'puppy' (*DED* 1371), Tu. *kondra* 'small, little' (*DED* 1965), To. *ku:x* 'girl, daughter', Ka. *ku:su* 'infant, babe, maiden, young virgin', Te. *ku:su* 'low, base, trifling, insignificant' (*DED* 1554).

koṇḍika 'child' is connected in *DED* to Ta. *koṟuntu* 'tender', *kuṟ* 'young' (1787). In that case, we cannot explain the nasal in *koṇḍika*. Since *nṟ* form is found in the inscription, it is probable to connect it to *kuñcu* where **ku:n-* is the root and different derivative suffixes are found in different Dravidian languages. PSCDr. **ku(:)n-ṟ-* / **kon-ṟ-* (*c, t, ṟ* are derivative suffixes).

(6) *nẽ:ḍu* 'today'; Ta. *ña:ṉṟu* 'time, day', Ma. *ña:nnu* 'day', *mini-ña:nnu, muni-ña:nnu* 'day before yesterday', Koḍ. *moni-a:ndī* 'day before yesterday', *ninna:ndī* 'yesterday', Go. *ne:ṇḍ*, (W) *ner* id., Koṇḍa *ne:nṟu* id., Kui *nenju:* id., Kuwi (F) *ninju*, (S) *ninzu* (*z=j*) id. (*DED* 2381) PSCDr. **ña:nṟ-*/ **ñe:nṟ-*

(7) *tā:ḍi* 'belleric myrobalam, Terminalia belerica Roxb'; Ta. *ta:ṉṟi*, Ma. *ta:nni*, Ka. *ta:ṟi, ta:ṟe, taṟi*, Tu. *da:ṇḍi mara*, Pa. *de:ndi, de:ni* (*de:nd-, de:n-*), Go. *tahka*, (M) *ṭa:hka:* (*DED* 2614). PSCDr. **ta:nṟ-*

(8) *tiṇḍi* 'eating, food', *tiṇḍī:ḍu* 'glutton', *tinu* 'to eat'; Ta. *tiṉṟi, tiṇṭi* 'eatables', *tiṉṉi* 'glutton', Ma. *tinni* 'an eater, glutton', Ko. *tin-* (*tiḏ-*) 'to eat', To. *tīn-* (*tīd-*) 'to eat', Ka. *tiṇḍi* 'food', *ti:ṟ* 'to take mouthfuls, devour', Koḍ. *tindi* 'food (except rice)', Tu. *tindruni* 'to eat all', Kol. *tin-* (*tind-*) 'to eat', Nk. *tin-* (*tind-*) 'to eat', Pa. *tin-* (*tind-*) id., Ga. (Oll.) *tin-*

(*tiy*–, *tiṇḍ*–) 'to eat', Go. *tinda:na*: id., Koṇḍa *tin*– (*tinṟ*–, *tiṟh*–) id., Kui *ti:spa*: 'to feed some one on something', Kuwi *tinjali* 'to eat', Kur. *tindna*: 'to put into another person's mouth', Malt. *tinde* 'to feed by hand' (*DED* 2670). PDr. **tin*–*ṟ*–

(9) *niṇḍu* 'to be filled, become full, teem, adj. full, complete, entire, perfect, copious, ample, abundant, n. fullness, satisfaction, strength, absence of anxiety', *niṇḍa*: 'abundantly, much, amply, very', *nin*(*u*)*cu* 'to fill', *ninupu*, *nimpu* id.; Tu. *diñjuni* 'to be filled, full, replete, fill', *diñja* 'plenty, abundance', *diñjelu* 'fullness, flood-tide', Kol. *niṇḍ*– (*niṇḍt*–) 'to become full', Nk. *niṇḍ*–id., Go. *ninda:na*: 'to be filled', Koṇḍa. *ninṟ*– 'to become full', Kui *nenja* 'to be filled', Kuwi (F) *nenjali*, (S) *nenzinai* 'to become full', Kur. *nindna*:, *nindrna*: 'to be filled', *nindna*: 'to fill', Malt. *ninde* 'to fill' (*DED* 3049). PCNDr. **nin*–*ṟ*–

(10) *mū:ḍu* 'three'; Ta. *mu:nṟu*, Ma. *mu:nnu*, Ko. *mu:nd*, To. *mu:ḏ*, Ka. *mu:ṟu*, Koḍ. *mu:ndï*, Tu. *mu:ji*, Kol. *mu:ndiṅ*, Nk. *mu:ndiṅ*, Pa. *mū:du*(*k*), Ga. (Oll.) *mu:ṇḍ*, Go. *mu:nd*, (W) *muṇḍ*, (M) *mu:ṇḍ*, (L) *muṇḍ*, (Pat.) *muḍu*, Koṇḍa *muṇḍri*, Kui *munji*, *mu:nji*, Kur. *mu:nd*, Br. *musiṭ* (*DED* 4147). PDr. **mu:nṟ*–

(11) *vaṇḍu* 'to cook'; Pa. *vend*–, (NE) *veṇḍ*– 'to cook', Ga. (Oll.) (S) *vaṇḍ* id. (*DED* 4364), Kui *vaja* (*vaji*–) 'to cook, n. cooking', Kuwi (F) *vwajali*, (S) *wazinai* 'to cook'. The Kui-Kuvi forms are connected in *DED* to Ta. *vaṟu* 'to be fried' (4360), but they can be better connected to Te. *vaṇḍu* 'to cook'. For **nṟ*>*j* in Kui, see **panṟi* > *paji* 'pig' (*DED* 3326). (Probably *vaṟu* 'to fry' of Ta. may be separate from *vaṇḍu* 'to cook' of Telugu.) PSCDr. **vanṟ*–

(12) *vā̃:ḍu* 'he', *va:ṇḍu/va:nṟu* (inscr.), *va:n-i* 'his'; Koṇḍa *va:nṟu*, Kui *aanju*, Go. *o:l*, *o:r*, Pa. *o:d*, Ga. (Oll.) *o:ṇḍ*, Kol. *and/avnd* (dial.), Kur. ? *a:s*, Tu. ? *a:ye* (*TVB* 4.44.). PCNDr. **avan-ṟ-*

1.2. *nṟ* > *nd*[4] (~*d* after long vowels in literary Telugu)

(1) *ū:du* 'to hold, rest or lean upon, support oneself on, place, rest, press, plant'. See § 1.1.(1)

(2) *kandu* 'blackness, discolouration caused by scorching, grief, vb. to be scorched, be inflamed (as by a blow), be vexed'; Ta. *kanṟu* 'to be scorched', *kanal* 'to be hot, burn, n. fire', Ka. *kandu* 'to be scorched by sun (said of the face) or by fire', Koḍ. *kandi* 'mark of a blow, bruise', Tu. *kanduni* 'to fade, wither' (*DED* 1186). PSDr. **kan-ṟ-*

(3) *kandu* 'infant', *kanduvu* 'child', *kanu* 'to give birth to'; Ta. *kanṟu* 'calf, colt, young of various animals', Ma. *kannu* 'young of cattle (esp. buffalo calf)', Ka. *kandu* 'calf', *kandi*, *kandu* 'a cow that has calved', *kanda* 'young child', Tu. *kañji* 'calf', Kur. *khad* 'child', Malt. *qade* 'son', Br. *khaning* 'to give birth to' (*DED* 1187). PDr. **kan-ṟ-*

(4) *kundu* 'to sink, decrease, become short (life span)', *gujju* 'a dwarf'; Ta. *kunṟu* 'to decrease, become reduced, droop', *kuñcam*, *kuñcan* 'a dwarf', Ka. *kundu* 'to become small, become lean, decrease', *gujja* 'a dwarf', Tu. *kunduni* to decrease, be reduced', *kundri* 'little, small, short' (*DED* 1537; See also § 1.1.(5)). PSCDr. **kun-ṟ-*

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[4] This cannot be said as a borrowing from Kannada because in Telugu this change is found even after a long vowel. In Kannada *nṟ* becomes *ṟ* after a long vowel.

(5) *pandi* 'pig'; Ta. *paṉṟi*, Ma. *panni*, Ko. *paj*, To. *pody*, Ka. *pandi*, Koḍ. *pandi*, Tu. *panji*, Pa. *pend*, (NE) *peṇḍ*, Ga. (Oll.) *panḍ*, (S) *paṇḍu*, Go. *paddi:*, Konḍa *panṟi* (*paṇḍri*), Kui. *paji*, Kuwi (F) *pajji*, (S) *pazz* (*DED* 3326). PSCDr. **panṟ*–

1.3. *nṟ* > *ṇḍr*

(1) *mirepa ka:ṇḍra* 'toddalia aculeata', *ka:ra* 'another variety of the same' (*mirepaka:ṇḍra* is *konḍa kasinda* and *ka:ra* is another variety of *kasinda*)[5], Ma. *ka:ra* id.[6], Ta. ? *ka:nṟai* 'a thorny plant' (*TL*). PSDr. **ka:nṟ*–

(2) *ka:ṇḍru*, *ka:ṇḍrincu* 'to make violent sound for bringing up phlegm', ? *ga:ṇḍru* 'bellow of tiger, etc.' (*SAN*), Ta. *ka:ṉṟal* 'vomiting, coughing and ejecting phlegm', To. *ko:n*- (*ko:ḏ*–) 'to vomit', Ka. *ka:ṟ* 'to vomit' (*DED* 1236). PSDr. **ka:nṟ*– < ***ka:l-nt* (Ta. *ka:l* 'to vomit, disgorge'). See also Ta. *kaṉai* 'to sound, bellow, nigh' (*DED* 1185)

(3) *taṇḍri* 'father', *tanṟi* (inscr.); Ta. *tantai*, Ma. *tanta*, Ka. *tande*, Pa. *tend*, Kui *tanji*, Kuwi (S) *tanzi* (*z*=*j*) (*DED* 2494). PCDr. **tan*-*ṟ*–

(4) *ta:ṇḍra* 'belleric myrobalan, Terminalia belerica Roxb'. See § 1.1.(7).

(5) *maṇḍra:ṭamu* 'botheration'[7]; Ta. *maṉṟa:ṭṭam* 'petition, entreaty, trouble, botheration' (*TL*), *maṉṟu* 'court, vb. to

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[5] *balusu, ka:ra, kasivenda yanan oppu ka:samardaṃbu* (*A:. Bh.* 2–63)

[6] *Five Hundred Indian Plants*, translated into Malayalam by B. J. Ponon (from Kannada), Basel Mission Book and Tract Depository, Mangalore, 1918.

[7] *paṇḍreṇḍẽ:ḍulun i: gatiṃ janaga jaṃbhadve:ṣi mukhya:marul maṇḍra:ṭambidi ye:la ceppudamu ka:madhvaṃsik i: ne:mamul*

fine, punish', Ma. *mannu* 'place of judgement or assembly', Ko. *manḏ* 'Toda mund (i.e. village), burning place for dry funeral', To. *moḏ* 'locus of tribal activity, including village with dairy, dairy apart from village, and funeral place', Ka. *mandu* 'hamlet of the Todas on the Nilagiri', Koḍ. *mandi* 'village green' (*DED* 3913). PSDr. **manṟ-*

1.4. *nṟ* > *ṟ* (> *r*)

(1) *a:ṟu* (in *a:ṟitēṟu*) 'to be capable, be powerful' (*TVB* II 67), *ã:ṭu* 'to be capable of' (*DED* 349); Ta. *a:ṉṟavar* 'erudite, wise persons' (*TL*), *a:ṟṟu* 'to become strong, powerful', *a:ṉṟal* 'greatness, dignity, abundance', Ma. *a:ṟṟuka* 'to grow richly, thrive', Ka. *a:ṟ* (*a:rt-*) 'to be or become strong, be powerful', *a:rpu* 'might, daring, valour', Koḍ. *a:t-* (*a:ti-*) '(body) attains maturity at about 21 years' (*DED* 349). PSDr. **a:nṟ-*/**a:ṟ-*

(2) *u:ṭa* 'strength', *ũ:ta*, *ũ:tamu* 'prop', *u:nu* 'to serve as a support', *uṟidi* 'firm, strong, firmness, strength', *oṟapu* 'steadiness, firmness; Ta. *uṟai* 'to become firm', *u:ṟṟu* 'staff, prop', Ma. *u:ṟuka* 'to sink into, penetrate', Ko. *urv-(urd-)* 'to sink into ground of hole of its own weight', To. *u:ṟ-* (*u:ṟy-*) 'to stick in ground (a stick etc.)', Ka. *u:ṟu* 'to put in the ground, plant', *u:ta* 'firmness, steady application of the mind', Koḍ. *u:r* 'to thrust end of stick to ground while walking', Tu. *u:runi* 'to set firmly, plant in the ground as a seed or shrub', Pa. *ud-* 'to plant', Go. *ursa:na:* 'to plant or transplant (trees, rice, chillies, etc.)', Konḍa *urs-* 'to transplant', Kui *uha* 'to plant,

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guṇḍra:yaimã jemarcun intakakaṭa: go:pa:la cu:ḍa:maṇin gaṇḍro: ka:naro va:ru ceppādagada: kaila:sa va:camyamul (*U. Hari.*–2–167, 14th century), *maṇḍra:ṭamugan iṟṟi ma:ṃsaṃbu mesavi ga:ṇḍrupeṭṭeḍu pedda gaṇḍameka:lu* (*Dwi. Sa:r.* 2–80–12, 18th century), *maṇḍa:ḍu* 'to grieve' (*SAN*)

transplant', *usa* 'to set a post into the ground', Kuwi (F) *u:hali*, (S) *u:hinai* 'to plant' (*DED* 650, 4619.). See also § 1.1.(1). PDr.**u:n-ṟ*/**u:ṟ-*

(3) *eṇḍu* 'to be heated by exposure to the sun'; Ta. *eṟi* 'to shine, glitter', *eṟippu* 'lustre, brightness, hot sun', Ma. *eṟikka* 'to shine (as sun)'. See also § 1.1. (2). PSCDr. **enṟ* <***el-nt-*; PSDr. **eṟ-*

(4) *kandu* 'infant', *karuvu* 'foetus'; Ta. *karu* 'foetus, young of animal', Ma. *karu* 'embryo', Ko. *karv* 'foetus of animal', Ka. *kaṟuvu* 'calf', *kandu* 'foetus of beasts', Pa. *kerb* 'egg', Ga. *karbe* id. (*DED* 1074). See also § 1.2.3. PDr. **kan-ṟ*; PSCDr. **kaṟ*/**kar*

(5) *mirepa ka:ṇḍra* 'toddalia aculeata', *ka:ra* 'another variety of the same'; Ma. *ka:ra* 'toddalia aculeata'. See § 1.3. (1) and see also ?Ta. *ka:rai* 'low shrub with sharp spines', etc. of *DED* 1234. PSDr. **ka:nṟ-*/**ka:r-*

(6) *ka:ṇḍru*, *ka:ṇḍrincu* 'to make violent sound for bringing up phlegm', *kra:yu* 'to spit, to bring up phlegm with violent sound' (See ŚR), (*B*) *g(r)a:yu* 'to spit'; Ta. *ka:ṟu* 'to hawk, bring up phlegm', Ma. *ka:ṟuka* 'to spit', *ka:ruka* 'to hawk, spit out', Ko. *ka:r* 'to vomit', Ka. *ka:ṟ* 'to vomit', Koḍ. *ka:r* 'to vomit', Tu. *ka:runi* id., Go. *ka:hca:na* 'to cough violently' (*DED* 1236; see also § 1.3.(2)). PSDr. **ka:nṟ-*<***ka:l-nt-*; PSDr. **ka:ṟ-*(Extended to Gondi ?)

(7) *koṇḍa* 'hill, rock', *koṟava* 'name of a tribe of mountaineers', *kuṟuvu*[8] 'a hill, high land'; Ta. *kuṟam* 'Kurava tribe', Ma. *kunnu*, *kuṟu* 'hill', *kuricci* 'hill country', *kuṟavan* 'wander-

[8] *gollemul diggucũ guṟuvul* (*guruvul*) *ekkucunu* (*Pa. cha. Par.* 359). See *kuruva* in *SAN*, *ŚR* and *Brown*.

ing tribe of basket makers, snake catchers and gipsies', *kuṟumpan* 'caste of mountaineers in vayana:ḍu', To. *kurb* 'man of kurumba tribe living in the Nilagiri jungles', Ka. *koṟaca* 'a thievish wandering hill tribe', ? *kuṟuva* 'an island' (Kittel), *kuṟumba* 'a caste of mountaineers', Koḍ. *kurubë* 'shepherd', Tu. *kurube* id., Go. *kuṟu* 'hill' (*DED* 1530 & 1548). See also § 1.1.(4). PSCDr. **konṟ-|*kunṟ-*; PSDr. **koṟ-|*kuṟ-* (Extended to Gonḍi.) The Gonḍi form may be an early borrowing from Telugu.

(8) *gurija, gurivenda* 'abrus precatorius', *guri-ginja, guru-ginja* 'seed of A precatorius'; Ta. *kuṉṟi*, Ma. *kunni*, Ka. *guru-gunji, guru-gunje, guru-ganji*, Tu. *guru-gunji, gur-gonji* (*DED* 1549). PSDr. **kunṟ-|*kur-|*kuṟ-*

(9) *konṟukaḷ* (Inscr.) 'sons, young men', *kuṇḍika:ḷḷu* (Inscr.) 'son (hon.), prince (hon.)', *kuṟṟa, kuṟṟāḍu, kuṟṟa va:ḍu* 'child, boy', *kuruca, kuṟu* 'short, dwarfish, small'; Ta. *kuṟu* 'short, dwarfish', Ma. *kuṟumpu* 'infant', Ko. *kurg* 'to become small', To. *kuṟx-* 'to be short', Ka. *kuṟu* 'smallness', Koḍ. *koru* 'deficiency', Tu. *kuru* 'little, small', *kurlė* 'a tender plantain tree, young pig', Konḍa *guṟhi, guṟhika* 'small, tiny, young (of animals)', Kui *kṟo:pka* 'to lower, reduce' (*DED* 1537). See also § 1.1.(5). PSDr. **kun-ṟ-|*kon-ṟ-*; PSCDr. **kuṟ-|*koṟ-*

(10) *tiṇḍi* 'food', *tinu* 'to eat'; Ta. *tiṟṟi* 'eatables that must be masticated before being swallowed', Ma. *ti:ṟṟuka* 'to cause to eat', Ka. *ti:r* 'to take mouthfuls, to devour', Ga. (Oll.) *tin-* (*tiy-*) 'to eat', Konḍa *tin-(tinṟ-, tiṟh-)* id. (*DED* 2670(a)). See also § 1.1 (8). PDr. **tin-ṟ|* PSCDr. **tiṟ-*

(11) *niṇḍu* 'to be filled', *neṟayu, nerayu* 'to become full', *nīn(u)cu* 'to fill'; Ta. *niṟai* 'to become full', *nira* 'to be full',

Ma. *niṟa* 'fullness', *niravuka* 'to level ground', Ko. *nerv-* (*nerd-*) '(girl) reaches puberty', To. *neṟ* 'to become full', Ka. *neṟe* 'to become entire, full', Koḍ. *nera-* 'to fill', Tu. *neriyuni* 'to be full', Kol. *neray-* 'to spread', Nk. *nipp-* 'to fill' (<?**nirp*), Go. *nihta:na:* 'to fill water', Koṇḍa *niṟh-* 'to fill', Kui *nehpa* 'to fill in', Kuwi (S) *neh'nai* 'to plenish' (*DED* 3049). See also § 1.1.(9). PCNDr. **nin-ṟ-*/**nen-ṟ-*; PSCDr. **niṟ-*/**neṟ-*/**nir-*/**ner-*

2. Among the above developments, *nṟ* > *ṟ* can be explained in two ways, (1) *-n-ṟ-*>*-ṟ-* and (2) *-nṟ-* > *-ṟ-*. In the former case, the *ṟ* in the cluster *nṟ* belongs to the derivative suffix which entered into the cluster *nṟ* in a later period before which there was *n*/*ṟ* alternation in Proto-Dravidian itself. For example, in the word **u:nṟ-*(§ 1.1.1), **u:n-* is the root and *-ṟ-* is a derivate suffix. **u:n-* had an alternant **u:ṟ-* in Proto-Dravidian and the suffix *-ṟ-* in the word **u:nṟ-* was added in a later period (either in PDr. itself or later). The main reason to reconstruct **u:n-* as the root and *-ṟ-* as the derivative suffix is the existence of the word *u:n-* with final *n* in some languages, e.g. Te. *u:nu* 'to support', etc. This has been explained by Dr. Bh. Krishnamurti in his *Telugu Verbal Bases*. He also gives evidences for *n*/*ṟ* alternation in the root syllables. (*TVB* 1.96. Te. *ma:nu* 'to be healed' : Ta. *ma:ṟu* 'to be cured', etc. See also *TVB* II 249. PDr. **kan-*/**kaṟ-*; PSDr. **kan-ṯ-*, etc.) This *n*/*ṟ* alternation is true with respect to some forms which have been indicated above (§ I.4.(2), (4), (9), (10), (11)) but, for the other forms, we have to reconstruct only *nṟ*/*ṟ* alternation for an earlier stage because of two facts, viz. (1) only *nṟ*/*ṟ* alternation is found and no form is found to end in *n* (2) in some forms the sandhi does not prove to have *n* in the root syllables. **el-nt-* > **enṟ-* (§ 1.4.(3)), **ka:l-nt-* > **ka:nṟ-*

(§ 1.4.(6)). If we eliminate the forms having *n*/*ṟ* alternation in PDr., we find *nṟ*/*ṟ* alternation in § 1.4.(1), (3), (6), (7) and these forms are distributed in SDr. only. This shows that the loss of *n* in the cluster must have started in SDr. after the separation of SDr. and CNDr. from PDr. Telugu is included in SDr. for this development.

3. *nṟ*/*ṟ* alternation is found in Tamil in large number, (1) *kanṟutal* 'to mature, to be enraged': *kaṟuttal* 'to mature, to result', (2) *cu:ṉṟal* 'scooping out': *cu:ṟal* 'scooping, digging', (3) *conṟi* : *co:ṟu* 'boiled rice',(4) *ta:nṟi* 'limit, period, duration': *ta:ṟu* 'until', (5) *tunṟutal* 'to be close, thick, crowded together': *tuṟutal* 'to be thick, crowded, full', (6) *tenṟutal* 'to be scattered, split to pieces, to stay away as from a group': *teṟutal* 'to leave, forsake'.

From the available material, it is not possible to state any condition for *nṟ*/*ṟ* in SDr. It is only in Kannada, *nṟ* > *ṟ* is regular after a long vowel and *nṟ* > *nd* after a short vowel. Even in Kannada, in some cases *nṟ* > *ṟ* is found after short vowels, e.g. **kanṟu* > *kaṟu* 'calf'.

4. Leaving *nṟ*/*ṟ* alternation, we find four stages of developments for the PDr. **nṟ* in the languages of the Dravidian family. (1) **nṟ* (2) **nd* (3) **ṇḍ* (4) **nj*. The forms of Ta.–Ma.–Ko.–To.–Ka. (*ṟ* after long vowels)-Konḍa are derived from **nṟ*, those of Kur.–Malt.–Nk.–Pa. (excluding NE)-Go.–Koḍ.–Ka. (after short vowels only)-Te. (sometimes)-Tu. (sometimes) are from **nd*, those of Kui–Kuwi–Tu.–(probably Br.) are from **nj* and those of Ga.–Pa.(NE)- Te. – Go. (sometimes) - Tu.(sometimes) are from **ṇḍ*. Among them, **nṟ* and **nd* clearly provide an isogloss separatiag SDr. and CNDr. and *nṟ* must have been preserved without any change by the time of separation of Ta.–Ma.–Ko.–To.–Ka. and the rest of the

languages. A change of *$n\underline{r}>nd$* must have started in the stage of CNDr. including a part of Ka.-Te.-Koḍ.-Tu. Though this change was started at the common stage of CNDr., the process of this change must have been in operation for a very long time,[9] because some of the constituent languages of this group have got different developments, not affected by *$n\underline{r}>nd$*, e.g. Kui-Kuwi *nj*, Ga.-Pa.(NE) *ṇḍ*, Konda *$n\underline{r}$* (*ṇḍr*); i.e. these dialects must have maintained *n$\underline{r}$* till they were separated from the main CNDr. Above all, the developments in Parji (*ṇḍ* in NE and *nd* in the rest) show that *n$\underline{r}$* was retained till the pre-Parji stage.[10]

5. As far as Telugu is concerned, *$n\underline{r}>nd$* must have started in some dialects of this language in the pre-Telugu stage itself and before the completion of the process, another development *$n\underline{r}>$ṇḍ* was started and became predominant. This *$n\underline{r}>$ṇḍ* is shared by Te.–Ga.–Pa.(NE)–Go.(sometimes)–Tu. (sometimes). The Telugu inscriptional records show that *$n\underline{r}>$ṇḍ* was (orthographically) complete by 10th century. Since both *n$\underline{r}$* forms and *ṇḍ* forms are found in the earliest inscriptional records, i.e. by 6th century A.D., the process of *$n\underline{r}>$ṇḍ* must be in operation from pre-6th century till 10th century A.D. in Telugu (orthographically).[11]

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[9] No time–limit can be fixed for any linguistic change. A change may take even some centuries to complete itself in a language. For instance, the *$\underline{r}>r$* in Telugu must have started before 3rd century A. D. and probably it was completed by 13th century (orthographically it has been maintained till 20th century). That is to say, it took more than 1000 years for its completion. (See Kandappa Chetty, 1963). The metathesis CVC>CCV (*ki:ḻ>kri* in *krinda* 'under') started earlier than palatalisation of *k* (see *TVB*) but palatalisation was complete by 7th century whereas metathesis by 9th century; *koḻcu* > *kḻoccu* > *kroccu* 'to dig'.

[10] See Emeneau, 1955, pp. 151–2

[11] See Mahadeva Sastry, p. 140

6. The development of *nṟ > ṇḍr must have started last of all the above in another dialect because of its uniqueness in Telugu. Even this change in Telugu must have started earlier than 8th century; the form paṇḍṟeṇḍu 'twelve' [paṇḍreṇḍu (lit.)] < pan-ṟeṇḍu (inscr.) < *pan-reṇḍu occurs in an inscription of 8th century.[12]

From a study of the above facts, it is clear that Telugu, excepting its nṟ/ṟ alternation, bends towards CNDr. Among the developments nṟ > ṇḍ, nṟ > nd, nṟ > ṇḍr and nṟ > ṟ, no one seems to have complementation with the others, i.e., each of them occurs in identical environments with the others. Exx:

*u:nṟ–	> *u:ṇḍu	> ũ:ḍu
	> *u:ndu	> ũ:du
*ta:nṟi	> *ta:ṇḍi	> tã:ḍi
	> ta:ṇḍra	
*konṟ–	> koṇḍa	
	> koṟava	
*panṟi	> pandi	
*pan–reṇḍu	> pan–ṟeṇḍu (inscr.)	> paṇḍreṇḍu
*kunṟu	> kundu	
*kunṟi	> guri–ginja	
*ka:nṟ–	> ka:ṇḍrincu	
	> *ka:ṟ-	> kra:yu

So, these developments can be explained only as having taken place in different parts of Andhra area and later got a dialect mixture.

[12] See Addanki Inscription, Śa:sana Padyamanjari

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Kodagu Vowels

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0. There are fourteen vowel phonemes in Koḍagu.[1] They are as follows:

i				*ï*		*u*	
	i:				*ï:*		*u:*
e				*ë*		*o*	
	e:				*ë:*		*o:*
		a					
			a:				

There is no serious problem as far as the vowels *a* and *a:* are concerned.[2] The present paper deals with the other twelve vowels under two major heads, viz. (i) the centralized vowels and (ii) the non-centralized vowels.

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[1] This is a revised version of a part of my M. A. thesis (Kothandaraman 1965). The data for the study have been collected mainly from the *Dravidian Etymological Dictionary* (*DED*). The *Tamil Lexicon* was consulted to verify some forms and meanings in Tamil.

I should thank whole-heartedly Professer T. P. Meenakshisundaran and Thiru N. Kumaraswami Raja but for whose help this study would have been incomplete.

[2] For the development of these vowels, see Emeneau (mimeo.). (I am thankful to Prof. Emeneau for having kindly sent me a copy of the same.)

1. The Centralized Vowels

Koḍagu shows the centralized vowels ï and ë in all positions. It is rather dangerous to trace the vowels in the final position to the PDr. stage. However, the vowels in the initial and medial positions can be examined.

1.1. *Initial Vowels*

1.1.1. *ë–*

Proto-Dravidian initial vowels **i* and **e* when followed by a retroflex consonant or *r* (< **ṟ*) become ï and ë respectively in this language. There are nine definite cases where we can assign Koḍ. ë to PDr. **e–*. (The quantity of the vowel whether it is short or long, does not disturb our statement.)

(*DED* 723) Koḍ. *ë:ḷ–* 'to get up', *ëḍï* 'to raise' : Ta. *eḻu*, Ma. *eḻu*, etc. **e:ḻ–/eḻ–V–*

(*DED* 432) Koḍ. *ëḷ–(ëḷi–)* 'to leave one's position' : Ka. *eḷidu*, etc. **eḷi–*

(*DED* 725) Koḍ. *ëḷïd–* 'to write', *ëḷïtï* 'writing' : Ta., Ma. *eḻutu*, *eḻuttu*, etc. **eḻut–*

(*DED* 772) Koḍ. *ë:ḷï* 'seven', *ëvvë* 'seven persons' : Ta. *e:ḻ(u)*, *eḻu* 'seven', etc. **e:ḻ–*

(*DED* 670) Koḍ. *ëṭṭï* 'eight' : Ta., Ma. *eṭṭu*, Te. *enimidi*, Ka. *eṇṭu*, etc. **eṇṭ–*

(*DED* 698) Koḍ. *ëttï* 'bull, bullock' : Ta. Ma. *erutu*, Ka. *ettu*, *eddu*, *eḻtu*, etc. **eḻut–*

(*DED* 776) Koḍ. *ë:r–* '(liquor) rises to head' : Ta. *e:ṟu*, etc. **e:ṟ–*

(*DED* 726) Koḍ. *ëḷḷï* 'gingili seed', *ëṇṇe* 'oil' : Ta. *eḷ*, *eṇ*, Ma. *eḷ*, Ko. *eṇ*, Ka. *eḷ*, etc. **eḷ*/**eṇ*

(*DED* 678) Koḍ. *ëṇṇ–* 'to say, tell' : Ta., Ma. *eṇ*, Ka. *eṇṇu*, etc. **eṇ–*

There are six instances which are uncertain. They are DED 368, 381, 387, 436, 439 and 449. All these six items show ë in the initial syllable when followed by retroflex or r (<*ṟ). The ë here is to be traced to Pre-Koḍagu *e– (see § 1.2.4. for Pre-Koḍagu *e), the origin of which might be either PDr. *i– or *e–. Also Pre-Koḍagu *ī(<PDr.*i) becoming ë when followed by a is possible. Thus,

A (1) *i [a > e (2) e [retroflex or *ṟ > ë

B (1) *i [retroflex or *ṟ > ī (2) ī [a > ë

At present it is not possible to state whether the centralization of vowels has taken place before the change i > e [a or it has taken place after the change i > e [a was over.

The following instances show ë even when not followed by a retroflex or *ṟ.

(DED 723) Koḍ. ë:v–, ëdd– 'to get up', ëpp– 'to raise up' : cf. ë:ḷ 'to get up', ëḍī 'to raise' *e:ḻ–

(DED 772) Koḍ. ëvvë 'seven persons' : cf. ë:ḷī 'seven' *e:ḻ–

(DED 670) Koḍ. ëmbadī 'eighty' : cf. ëṭṭī 'eight' *eṇ–

(DED 698) Koḍ. ëttī 'bull' : cf. Ka. eḷtu, Ta. erutu *eḻut–

We have to assume here that there was an original retroflex in these instances which got assimilated to the following consonant. When we compare other forms we find no difficulty in reconstructing the proto-forms with a retroflex. It is to be noted here that the simplification of consonant clusters has taken place only after the vowels i and e got centralized.

There is only one item where e does not become ë when followed by ṟ.

(DED 450) Koḍ. eṟaci 'meat' : Ta. iṟaicci, iṟṟi, Ma. iṟacci, Te. eṟaci, etc.

This form may be a borrowing from Malayalam or Tamil. In colloquial Tamil and Malayalam i > e when followed by a in the next syllable.

1.1.2. ī-

The Koḍagu forms showing ī in the initial position when followed by a retroflex are the following:

(*DED* 375) Koḍ. *īḍ-* 'to drop' **iṭ-*
(*DED* 373) Koḍ. *īḍi* 'the whole' **iṭi*
(*DED* 366) Koḍ. *īḍi* '(wall) falls' **iṭ-*
(*DED* 426) Koḍ. *īḷi-* 'to descend' **iḻi-*
(*DED* 427) Koḍ. *ī:ḷ-*(*ī:p-*, *ī:t-*) 'to drag' **i:ḻ-*

In *DED* items 426 and 427, the Koḍagu forms show ī when followed by non-retroflex consonants. Here also the problem arises: did *i* > ī before or after the retroflex and ṟ were lost from the cluster? This problem is exactly similar to that of *e*>*ë*. (See § 1.1.1.)

In the case of ī (<**i*) it is to be noted that we have no Koḍagu forms showing ī when followed by ṟ (<*ṟ).

1.2. *Vowels preceded by a consonant in the first syllable*

There are a number of instances whose first syllables show centralized vowels. All the items are not listed here since such a big list is unnecessary; but all such forms have been thoroughly examined.

The rule framed for the centralized initial vowels holds good for the vowels in the initial syllables also. There are a few exceptions here. They may be classified as follows:-

(1) *i* remains *i* even when followed by a retroflex.
(2) *i* > ī before *r* (<*ṟ).
(3) *e* remains *e* even when followed by a retroflex.
(4) *e*>*ë* when not followed by a retroflex or ṟ.

All these exceptions are dealt with in the following sections.

1.2.1. **i* *remaining* *i* *even when followed by a retroflex*

(*DED* 2190) Koḍ. *ciṇḍ-eli* 'house-mouse' : Ta. *cuṇṭeli*, Ma. *cuṇṭeli*, etc., cf. Ta. *ciṉṉa*, *ciṟu*, *ciṇṭuviral*.

(*DED* 2135) Koḍ. *ciṇṇi* 'small' : Ta. *ciṉṉa* 'small', *ciṟu* 'small, little', etc.

i preceded by the palatal *c*- does not become *ī* even when it is followed by a retroflex. This statement takes care of the items given above.

There are two more items under this head.

(*DED* 1613) Koḍ. *giḍa* 'plant' : Ta., Ma. *ceṭi*, Ka. *giḍa*, *giḍu*, Tu. *giḍa*, Te. *ceṭṭu*, etc.

(*DED* 2637) Koḍ. *diṇḍī* 'stem of plantain' : Ka. *diṇḍu*, Tu. *diṇḍu*, etc.

Koḍagu *giḍa* is probably borrowed from Kannada and hence it did not become **gīḍa*. In the item 2637, the initial *d* in *diṇḍī* might have been the conditioning factor for *i* to remain without change before a retroflex. Or the form might have been borrowed from Kannada or Tulu.

1.2.2. **i >ī before r* (<**ṟ*)

(*DED* 2683) Koḍ. *tī:r* 'to be used up, finished' : Ta. *ti:r*, Ma. *ti:r*, Ka. *ti:r*, etc. **ti:r*

Here we do not expect the vowel **i* to be centralized, because the following *r* cannot be derived from PDr. **ṟ*. The only explanation possible for this is that this change took place in analogy to **ṟ*.

1.2.3. **e remains e even when followed by a retroflex*

(*DED* 1281) Koḍ. *ceḍi* 'a spark' : To. *kiṛy*, Ka. *kiḍi*, Tu. *kiḍi*, etc.

(*DED* 2269) Koḍ. *ceḍi* 'anger' : Ma. *ceṭikka*, etc.

(*DED* 2072) Koḍ. *ceḍi* 'to break of itself with a cracking noise' : Ta. *ciṭṭikai*, Ka. *ciṭaku*, Tu. *ciṭuku*, Te. *ciṭika*, etc.

(*DED* 2296) Koḍ. *ceḷḷī* 'flea' : Ta., Ma. *ceḷḷu*, *etc.*

(*DED* 243) Koḍ. *ceḷḷavë* 'scaly ant-eater' : Ta. *aḻuṅku*, *aḷuṅku*, Ma. *aḷḷuvan*, Tu. *aḷaṅku*, Te. *a:ḷuga*, etc.

(*DED* 2275) Koḍ. *ceṇḍī* 'ball' : Ta., Ma. *ceṇṭu*, Ka. *ceṇḍu*, Tu. *ceṇḍu*, Te. *ceṇḍu*, etc.

The vowel **e* does not become *ë* when preceded by palatal *c* and this explains these exceptions.

1.2.4. *e>ë even when not followed by a retroflex or ṟ*

(*DED* 2839) Koḍ. *tëkkī* 'south' : Ta. *teṉ*, *teṟku*, Ma. *ten*, *tekku*, etc.

(*DED* 1348) Koḍ. *kë:kī* 'the east' : Ta. *kiḻakku*, *ki:ḻ*, Te. *kri:*, Pa. *kiṛi*, Kur. *kiyya*, *ki:ta:*, Br. *ki–*, *ki:–*, *ke:–*, *ke:ragh*, etc.

(*DED* 2841) Koḍ. *të:kīlī* 'a belch' : Ta. *te:kkam*, Ma. *te:kk–*, *te:ṭṭuka*, *tekiṭṭu*, *te:ññu*, Ka. *te:ku*, Te. *de:vu*, etc.

In the case of *DED* 2839, the Koḍagu form can be explained, if a form like *teṟku* of Tamil can be posited in Pre–Koḍagu.

In *ke:kī* (*DED* 1348) Pre-Koḍagu *e* (<**i*) is followed by **ḻ* which is assimilated to the next consonant. The Koḍagu vowel *ë* is lengthened due to vowel contraction.

It is very difficult to explain the remaining item, viz. *DED* 2841. All the languages in this case show a velar after *e*. This velar may be suspected to have something to do with the centralization of vowel, but there are more than five instances showing *e* followed by *k* (*DED* 4228, 4220, 3852, 3052, 2839), wherein this centralization does not take place. Therefore the velar consonant cannot be the conditioning factor. At present we can give the following suggestion.

The Malayalam cognates *te:ṭṭuka* and *te:ññu–* in *DED* 2841 tempt us to reconstruct **te:ṇk–*. The following forms support this reconstruction: Ta. *ve:ṇ* 'desire', *ve:ḷ*, *ve:ṭkai*, *ve:ṇava:*, *ve:ṇṭu*, *ve:ḷvi*, *ve:ṭṭai*. *ṇ* alternating with *ḷ* is a common feature

in Dravidian. E.g., Ta. *eṇ/eḷ* 'gingili seed'. So **te:ṇk-* can be connected with the Tamil form *teḷku* 'be over crowded'. The sequence *ṇk* can be assimilated to *ṅk*, e.g., Ta. *veṇkalam* 'bronze' > *veṅkalam* (in colloquial Tamil). Hence **te:ṇk-* can be connected with *te:ṅku, te:kku, te:ṅṅu*, etc.

1.3. *Medial Vowels*

The vowels, ï, ë which are not final and which do not occur in the first syllable, are dealt with under this head. Only the Tamil cognates are given along with the Koḍagu forms.

1.3.1. -ë-

(*DED* 3511) Koḍ. *puttëri* 'rice harvest festival': Ta. *puttari*, etc.

This is the only instance we have for the vowel ë medially. Here the Tamil phonemic sequence *-ar-* corresponds to Koḍagu *-ër-*. But this feature is not regular.

1.3.2. -ï-

The Koḍagu forms in *DED* items 411, 502, 544, 569, 571, 725, 2102, 2112, 2655, 3451, 3491, 4112 and 4419 show ï corresponding to Tamil *u*. In this connection it may be noted that in colloquial Tamil all *u*'s except those which belong to the initial syllable become ï.

1.4. *Final Vowels*

It is always difficult to reconstruct the vowels in the final position. We find some developments in Koḍagu similar to that of Tamil, especially with regard to -ï.

1.4.1. -ë

The final -ë of Koḍagu corresponds to Ta. *-ai* and *-ya*.
(*DED* 232) Koḍ. *avvë* 'mother': Ta. *avvai*
(*DED* 3613) Koḍ. *perië* 'elder, great' : Ta. *periya*

There are some cases where Koḍagu -ë^{n} corresponds to Tamil -*aṉ*.

(*DED* 985) Koḍ. *kaṇḍavë*^{n} 'stranger' : Ta. *kaṇṭavaṉ*

1.4.2. -ï

The final -ï in Koḍagu can be traced to an earlier *-*u*. But **u* remains *u* in Koḍagu when the syllabic pattern of the item is CVC*u*.

(*DED* 324) Koḍ. *a:lï* 'banyan' : Ta. *a:l* 'banyan'

(*DED* 4449) Koḍ. *billï* 'bow' : Ta. *vil*

(*DED* 4230) Koḍ. *a:ṇḍï* 'year' : Ta. *ya:ṇṭu, a:ṇṭu*

It is to be remembered that the Koḍagu ï in the initial position is to be traced back to an original **i* when followed by a retroflex or **ṟ*. In the medial position, i.e., in the second or the third syllable, the Koḍ ï can be traced back to an earlier **u* when preceded by a retroflex or **ṟ*.

The development of Koḍagu -ï in the final position is similar to that of colloquial Tamil -ï.

2. The Non-Centralized Vowels

The non-centralized vowels *i, u, e* and *o* are dealt with in the following sections.

2.1. *u*

The front vowels **i* and **e* become in Koḍagu *u* and *o* respectively between a bilabial and a retroflex or *r*.

E.g. (*DED* 3412) Koḍ. *puḍi*– 'to catch' : Ta. *piṭi*, etc. **piṭi*

(*DED* 3975) Koḍ. *muḍi* 'fruit when very small and not yet grown (mango, jack, coconut, etc.)' : Ma. *miṭi*, Ka. *miḍi*, Tu. *miḍi*, Te. *ma:-miḍi*, etc. PSDr. **miṭi*

(*DED* 4419) Koḍ. *buḍ*– 'to release': Ta., Ma. *viṭu*, etc. **viṭ*–

The process of labialization is found in Koḍagu and Tulu. Here it is to be noted that the vowels *i* and *u* alternate in PDr. itself [3]

[3] For detailed discussion, see Kothandaraman 1965, ch. 5

When *i/u* alternation is found in an item in Koḍagu and Tulu alone, it is preferable to reconstruct that particular item with **i* rather than with **u*. In other words Koḍagu and Tulu have developed the change *i* > *u* and this change cannot be attributed to PDr.

For instance in *DED* 4419, Koḍ. *buḍ* is reconstructed as **viṭ-*. Koḍagu *b* is traceable to PDr. **v-*. **i* has changed to *u*, in between *v* and *ṭ*.

When all the languages show *u* in a particular item, that item is reconstructed with the vowel *u*. For instance, Koḍ. *muḷḷī* (*DED* 4098) is reconstructed as **muḷ*. Other sets which do not come under these two groups should be treated under PDr. *i/u* alternation. There is a problem here: in the case of *i/u* alternating forms, what were the forms that Koḍagu shared? If the forms showing **i* were shared, then they should have been labialized in Koḍagu. If those showing **u* were shared, Koḍagu should have preserved them as we find now.

So Koḍagu *u* is derivable from three sources:

(1) From an original **i* between a bilabial and a retroflex.

(2) From an original **u*.

(3) From the sources where there is **i/*u* alternation in PDr. itself.

In the third source, (1) the Koḍagu forms may be traced to PDr. forms showing **u*, (2) they may be traced to PDr. forms showing **i* (and then suffered labialization), or (3) one set of the forms may be traced to forms showing **i* and another set to those showing **u*. We cannot say anything concrete about this.

2.2. *o*

Koḍagu *o* can be derived from four PDr. sources.

(i) **e*>Koḍ. *o*, between a bilabial and a retroflex (or sometimes *ṟ*).

(ii) *u > Koḍ. o, when followed by *a in the next syllable.

(iii) *i/*u > Koḍ. o, between a bilabial and a retroflex (or sometimes ṟ) and when followed by *a in the next syllable.

(iv) *o > Koḍ o.

2.2.1. The following items belong to the first category: *DED* 4502, 4524, 4464, 4511, 4519, 4548, 4564, 4546, 4547, 4150, 3608, 3623, 3600, 3603, 3636.

In the item 4502 (**veṭi* : Koḍ. *boḍi*)[4], Tamil *veṭi* and *viṭu* are given under the same etymology. But they seem to be different words. Tamil *viṭu* is related to the following forms in the same language:– *vi:ṭu, viṭutal, viṭutalai, viṭai, viṭuppu.* The central meaning of these forms is 'to leave, to be separated, etc.'. Tamil *veṭi* on the other hand goes with the following forms:– *veṭi, veṭippu, veṭuppu, veṭukku, ve:ṭṭu.* These forms have the central meaning 'to explode, to split, to burst, etc.' Note that *viṭu* and *veṭi* end in high vowels and that *i/e* alternation is not possible here.

These two forms *viṭu* and *veṭi* need not be brought under the same etymology. The central meanings of these two sets of forms are different and so there is nothing wrong in treating them as two different sets.

The first set of etymology is as follows:

Ta. *viṭu* 'to be split, broken, to split', *viṭai* 'to separete', *vi:ṭu* 'renunciation', *viṭutalai* 'freedom', *viṭai* 'answer', *viṭuppu* 'leave', *viṭi* 'to undo, unfold', Ma. *viṭaruka* 'to split open', *viṭarkka* 'to open, unfold', *viṭavikka* 'to split', Ka. *bi:ḍe*, *bi:ḍu* 'crevice', Te. *bi:ṭa* 'split, chink'.

The second set is as follows:

Ta. *veṭi* 'to crack, break, split, burst, shoot forth', *veṭippu* 'crevice', *viṭar* 'cleft in a mountain', *veṭi* 'gun', Ma. *veṭi*

[4] See Appendix

'explosion, shot, gun', *viṭar* 'cleft', Ko. *veyṟ* 'gun', Koḍ. *boḍi* 'act of shooting', Tu. *beḍi* 'gun', *beḍe beḍe* 'the sound of a broken vessel'.

Now it can be decided that Koḍ. *boḍi* corresponds to Ta. *veṭi* but not to *viṭu*.

In the item 4464 (Ta. *viḷai*, Koḍ. *boḷe*, etc.) we do not know whether the PDr. vowel is **i* or **e*. Generally a Koḍagu front vowel has a tendency to become a back vowel when it occurs between a bilabial and a retroflex (and sometimes *ṟ*). Only when this condition is absent *i* becomes *e*, when followed by *a*. Therefore the Koḍagu vowel *o* here cannot be derived from an original **i*. The only possibility is *e*, which becomes *o* between a bilabial and a retroflex, etc. Note that colloquial Tamil has the form *veḷḷa:me* 'crops, yield, ripening, grain'. This form is more commonly used in the phrase *veḷavu-veḷḷa:me* 'crops, yield, etc.' (Cf. Literary Tamil *viḷaivu* and *veḷḷa:ṇmai*). **veḷ-*

(*DED* 4524) Koḍ. *boḷī* 'to become white': Ta. *veḷ, veṇ*, etc. **veḷ-*

(*DED* 4511) Koḍ. *boṇṇe* 'butter': Ta. *veṇ-ṇey*, etc. **veṇ-*

(*DED* 4519) Koḍ. *boraḍ-* 'to be thrown into confusion by fear': Ta. *veruḷ*, etc. **ver-*

(*DED* 4548) Koḍ. *bo:ḍ-* 'to beg', *bo:ṇḍu* 'it is wanted': Ta. *ve:ṇ, ve:ṇṭu*, etc. **ve:ṇṭ-*/**ve:ḷ-*

(*DED* 4564) Koḍ. *bo:re* 'different': Ta. *ve:ṟu*, etc. **ve:ṟ-*

(*DED* 4546) Koḍ. *bo:ṭi* 'stake in centre of threshing floor round which the cattle are driven': Ko. *ve:ṭḷ* **ve:ṭ-*

(*DED* 4547) Koḍ. *bo:ṭe* 'hunting': Ta. *ve:ṭṭai*, etc. **ve:ṇṭ-*

(*DED* 4150) Koḍ. *moṭṭī* 'foot print': Ta. *meṭṭu*, etc. **meṭ-*

(*DED* 3608) Koḍ. *poṇṇī* 'wife, female': Ta. *peṇ*, etc. **peṇ-*

(*DED* 3623) Koḍ. *poṟīk-* 'to pick up': Ta. *peṟukku*, etc. **peṟ-*

(*DED* 3600) Koḍ. *poṭṭi* 'box' : Ta. *peṭṭi*, etc. **peṭṭ–*
(*DED* 3603) Koḍ. *poṭṭī* 'lie' : Ta. *peṭṭu*, etc. **peṭṭ–*
(*DED* 3631) Koḍ. *po:ḍi* 'fear' : Ta. *pe:ṭi*, Ma. *pe:ṭi*, etc. **pe:ṭ–*

Koḍagu has only two forms retaining *e* in this environment.

(*DED* 3639) Koḍ. *be:ḷe* 'each of the halves of a seed that can be divided': Ka., Tu. *be:ḷe*, Te. *be:ḍalu*

(*DED* 4503) Koḍ. *beṭṭa* 'big hill, mountain': Ka. *beṭṭa*, Ta. *viṭam*, *viṇṭu*, Ko. *veṭm*, *beṭ*, Tu *beṭṭu*, Br. *biṭ*, *buṭ*

Both these items seem to have been borrowed from Kannada.

2.2.2. The following items come under the second category, i.e. **u* [*a* > Koḍ. *o*

(*DED* 3497) Koḍ. *poḍea* 'saree': Ta. *puṭaivai*, *puṭṭam*, Ma. *puṭa*, *puṭava*, Ko. *poṛv*, Te. *puṭṭamu* **puṭ–*

(*DED* 4076) Koḍ. *moraḍ–* 'to weep': Ta. *mural*, Ma. *muraḷ*, Ka. *moral*, Tu. *mure*, Te. *morayu*, Kol. *moray–*, Nk. *moray*, Go. *mo:ri:-*, Kui *muru*, Kuwi *mu:ru:*, Kur. *murrna:*, Malt. *mure*, ? Br. *mar–* **mur–*

(*DED* 4131) Koḍ. *mo:ḍa* 'cloud': Ta. *mu:ṭam*, *mu:ṭṭam*, Ma. *mu:ṭal*, Ka. *mo:ḍa*, Tu. *mu:ḍa*, *mo:ḍa*, Te. *mo:ḍamu* **mu:ṭ–*

2.2.3. The following items can be traced back to **i*/**u* alternation in PDr. :– *DED* 3543, 3554, 4092, 4093. Among the two alternative forms Koḍagu might have taken the forms which show *u* in PDr. This *u* is later changed to *o* when followed by *a*.

2.2.4. The following items come under the fourth category i.e., **o*>*o* :– *DED* 3493, 3667, 3674, 3676, 3724, 3725, 372,6,

3729. Besides these, there is one item left unexplained, viz. (*DED* 3834) Koḍ. *moṉe* 'calf of the leg', Ta. *maṉṉai*, Ma. *maṉṉa*. In this case Tamil, Malayalam and Koḍagu forms alone are given and Koḍagu *moṉe* is left unexplained here.

Appendix

(*DED* 381) Koḍ. *ëḍate* 'left': Ta. *iṭam* 'left side', Ma. *iṭam*, Ko. *eṛ*, To. *öṛ*, Ka. *eḍa*, Tu. *eḍa*, *yaḍa*, Te. *eḍama*, Kol. *eḍama-*, Nk. *ḍa:va*, Pa. *ḍebri*, Ga. *ḍebri*, Go. *ḍa:va:*, Kui *deba*, Kuwi *tebri*

(*DED* 436) Koḍ. *ëḷeë* 'youth' : Ta. *iḷam*, *iḷai*, Ma. *iḷa*, Ko. *eḷ*, To. *eḷ*, *eḷa*, Tu. *eḷa-*, Te. *lẽ:-*, Kol. *le:ṅga*, Nk. *le:ṅga*, Pa. *iled*, Ga. *ile*, Go. *rai-*, Kui *leti*, Kuwi *liddi*

(*DED* 449) Koḍ. *ërakī* 'eaves' : Ta. *iṟai*, *iṟappu* 'inside of a sloping roof, eaves of a house', Ma. *iṟa*, Ka. *eṟakil*, Kui. ? *re:pa* 'the lower slopes of a hill'

(*DED* 3543) Koḍ. *poḷe* 'river': Ma. *puḻa*, Ko. *pey*, To. *pa:w*, Ka. *poḻe*

(*DED* 3554) Koḍ. *porame* 'outside': Ta. *puṟam*, Ma. *puṟam*, Ko. *poranj*, To. *pīr-*, Ka. *poṟa*, Tu. *pida*, Te. *peṟa*

(*DED* 4092) Koḍ. *moḷi* 'subject of talk or song': Ta. *muḻaṅku*, Ma. *muḻaṅṅuka*, Ko. *moṛv*, ? To. *mīḷ*, Ka. *moḻagu*, Te. *mrõ:gu mro:yu*, Ko. *muḍ*, Nk. *muṛ-*

(*DED* 4093) Koḍ. *moḷa* 'cubit': Ta. *muḻam*, Ma. *muḻam*, Ko. *moḻm*, To. *magoy*, Ka. *moḷa*, Tu. *mora*, *mura*, *moḷa*, Te. *mu:ra*, *mõ:-*, Kol. *mu:ra*, Pa. *mu:ra*, Kui *miru*, *meḍu*, Kur. *mũ:ka*, *mu:ka*, Malt. *mûke*, *mûki*

(*DED* 3493) Koḍ. *poḍa-* 'to fluttur quickly to and fro': Ta. *puṭai* 'to winnow', Ko. *poṛo-*, To. *puṛf-*, Ka. *poḍe*, Tu. *puḍe-*, *poḍe*, Te. *poḍucu*, *po:ṭu*, Ga. *po:ḍu*

(*DED* 3667) Koḍ. *poḍi* 'powder, flour': Ta. *poṭi*, Ma. *poṭi*, Ko. *poyṟ*, ? To. *pīṟy*, Ka. *puḍi*, Tu. *poḍi*, ? Pa. *por*, ? Ga. *poddu:l*

(*DED* 3674) Koḍ. *poṭṭ-* 'to burst with noise, explode': Ta. *poṭṭu*, Ma. *poṭṭuka*, Ko. *poṭ-*, To. *pīṭ*, Tu. *poṭṭu*, Te. *poṭlu*, Pa. *poṭ*, Ga. *poṭ*

(*DED* 3676) Koḍ. *boṭṭī* 'round mark worn on the forehead': Ta. *poṭṭu*, Ma. *poṭṭu*, Ka. *boṭṭu*, Tu. *boṭṭa*, Te. *boṭṭu*

(*DED* 3724)Koḍ. *poḷīdī*, *po:dī* 'the act of doing pu:ja: to the arms and shooting after the monsoon': Ta. *poḻutu* 'time, opportunity, sun', *po:ḻtu*, *po:tu*, Ma. *poḻutu*, Ko. *poṟt*, To *pīšt*, *pošt*, Ka. *poḻtu*, Tu. *portu*, Te. *p(r)oddu*, Kol. *pod*, Nk. podd, Pa. *apoṭ* 'that time', Go. *porḍ*

(*DED* 3725) Koḍ. *poḷi* 'to break (of a stick-like thing, tree): Ta. *poḷi* 'to chisel', Ma. *poḷi*, *puḷakka*, Ka. *poḷḷu*, Tu. *poḷiyuni*, Te. *poḍucu*

(*DED* 3726) Koḍ. *poḷḷe-nellī* 'paddy ear with no grain inside': Ta. *poḷḷu* 'empty glume or husk of grain', Ma. *poḷḷu*, To. *wīḷ*, Ka., Tu. *poḷḷu*, Te. *pollu*, Nk. *polle:*, Pa. *pol*, Go. *pol-*, Kui *polgu*, Kuwi *poru:*, ? Malt. *paṭso*

(*DED* 3729) Koḍ. *porī-* 'to carry', *pore* 'a load': Ta. *poṟu*, Ma. *poṟukka*, Ko. *por-*, To. *pīṟ-*, Ka. *poṟ*, Tu. *pude*, Go. *puhta:na:*

(*DED* 4502) Ta. *veṭi* 'to crack, break, split, etc.', *veṭippu*, *viṭappu*, *viṭampu*, *viṭavu*, *viṭar*; *viṭu* 'to be split, broken, cracked', *viṭai* 'to separate', Ma. *veṭi* 'explosion, cracking, shot, gun', *viṭar* 'cleft', Ko. *veyṟ* 'gun', Ka. *bi:ṭe*, *bi:ḍi*, *bi:ḍu*, *bi:ḍe* 'chink, crack, crevice', Koḍ. *boḍi* 'act of shooting', Tu. *beḍi* 'gun', Te. *viḍugu* 'to expand, blow, blossom', *bi:ṭa* 'crack, cleft, split, chink, etc.'

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Classification of Tamil and Malayalam Verbs

A Comparative study

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0. Introduction

This paper is a comparative examination of certain simple verb forms in Tamil and Malayalam. Attention will be concentrated on present and past tense stems. Reference to future tense forms would be entirely superfluous, since for both languages, in all styles, present and future forms are mutually predictable, once a few very simple morphophonemic rules are stated. Thus, any Tamil verb which has tense, voiceless velar plosion to initiate the morpheme signifying present tense, will have tense, voiceless, bilabial plosion as a marker of future tense in both colloquial and formal styles. In all other cases the phonetic segment to be analysed as an allomorph of the "future" morpheme will be a voiced labial consonant (the choice between a voiced labio-dental semi-vowel and a voiced bilabial stop being phonologically conditioned.) The relationship between the two tenses in Malayalam is even simpler, present *-kkunnu* and *-unnu* corresponding to future *-kkum* and *-um* respectively.

One difference between Tamil and Malayalam positive, finite verbal forms that is too well-known to need discussion is the absence in Malayalam of the pronoun-verb concord that prevails in Tamil. Much has been written about the reasons for this feature of Malayalam. (See, for example, Caldwell (1956, 485-6), Sekhar (1953, 107-8) and Bloch (1946, 45), and a number of recent articles contain descriptions of the "personal terminations" of colloquial Tamil (e. g. Zvelebil (1963), Ramanujan (1968) and Asher (1966)).

1. Loan-words

The verbal systems of Tamil and Malayalam both include loans from other languages, but there is an important difference. It is a common feature of the foreign borrowings in most languages that there is a preponderance of nominal forms. Verbs seem to be much less readily taken over. The proportions in the two southernmost of the Dravidian languages, however, are markedly different. A few fairly random statistics bring this out clearly.

Thus, of the verbal roots included in the Fabricius *Dictionary* of Tamil (1933) almost exactly one sixth are loan-words--almost all of them from Sanskrit. The first volume of the *Malayalam Lexicon* (Kunjan Pillai 1965) gives a most valuable classified list of verbs, with "all the verbs borrowed from Sanskrit" in a separate group. This group, though it does not quite include all the verbs in Malayalam that are non-Dravidian in origin, contains 1013 entries out of a total of 2981. This suggests that the percentage of loans among Malayalam verbs is more than twice as big as that among Tamil verbs. Moreover, in a certain sense, the difference may be even greater. For a dictionary says nothing about frequency of occurrence. In this context the figures in the

table that follows seem significant. Samples were taken from six works of prose fiction, three in each language. In each case the three included the earliest novel of any consequence in the language and works by two living authors (See the Bibliography appended to this article.) Consecutive stretches were randomly selected from each book, with each passage containing 200 verbal forms. The number of non-Dravidian words among these was noted and was seen to be as follows:

1. *Tamil*

a.	Vedanayagam Pillai	4
b.	Rajaji	7
c.	Mu. Varadarajan	0

2. *Malayalam*

a.	Chandu Menon	46
b.	Thakazhi	31
c.	Basheer	17

If the writers are grouped, this gives barely two per cent for the Tamil writers and almost sixteen per cent for the Malayalam ones. A larger sample might give slightly different results, but there is no reason to doubt that these proportions are a fairly accurate representation of the state of affairs.

Statements that even in colloquial Tamil "loans are extremely rare among verbs" (cf. Asher 1966, 16) have sometimes been questioned on the grounds that spoken Tamil uses many English loans in verbal contexts. But the essential feature of almost all, if not all, of these is that they are compounds made up of English borrowing + purely Tamil verbal root (such as *paṇṇu*). Such forms need to be taken into account in a description of the verbal piece, but are not relevant to statements about verbal stems.

The essential difference between Tamil and Malayalam with regard to loan-words is that Malayalam has shown itself to be more receptive of (mainly Sanskrit) borrowings as verbal roots. It should be noted, however, that this in no way affects the "conjugation" of verbs: the morphology of tenses is in no way changed. The result is simply a difference in the phonological structure of verbal roots. No realistic statement of the phonology of the verb in Malayalam can ignore this. But a description of the phonological structure of verbal roots in Tamil could be purely "Dravidian" and still include all but a tiny number of verbs in regular use in the language. For even among the loans that do occur, all but a few are completely assimilated to the Dravidian system. (By way of example one might compare Tamil *paṭi* and Malayalam *paṭhi*.)

Since an account of the formation of tenses is in no way different, whether or not loan-words are included, this point, too, will not be discussed in any greater detail. It will suffice to note that, with very rare exceptions, all loans will be found to "conjugate" in the same way and that this will be in the manner of a group of verbs of Dravidian stock, whether the language under examination is Tamil or Malayalam. In this sense, therefore, the 1013 "Sanskrit" verbs in the *Malayalam Lexicon* do not form a separate "group" (though there is clearly some value in listing them separately in an appendix to a "dictionary on historical principles".)

2. Classification of Tamil Verbs

Most nineteenth and twentieth century European grammarians of Tamil have attempted to classify verbs into a number of groups, and these classifications have tended to differ considerably one from the other.

Pope (1926, 45-61) gives a classification based on a number of different (and occasionally conflicting) criteria. Factors taken into account include (1) whether verbs are "strong", "weak" or "middle" -- "strong" verbs having "harsher" consonants in the tense morpheme; (2) the final vowel of the root; (3) whether verbs are transitive or intransitive. Three "general rules" and several "special rules" are given: no rule is without its exceptions. Aware of the unsatisfactory nature of this, Pope notes that "the dictionary must be consulted".

The grouping of verbs in the first three editions of Arden's *Grammar* was even less satisfactory. It is true that it was entirely systematic, the seven conjugations being set up according to the last letter of the root. But such an analysis clearly took no account of the essential feature of the formation of tenses.

It is not surprising, therefore, that A. C. Clayton, in his revision of Arden, decided to adopt the classification given by Graul (1855), which is also the one followed in the 1933 edition of Fabricius' *Dictionary*. This divides verbs into seven conjugations, divided initially into three groups: (1) "weak" -- future in *v*; (2) "middle" -- future in *p*; and (3) "strong" -- future in *pp*. (There is thus some superficial similarity to Pope's account.) Groups (1) and (3) are further subdivided into two and four respectively to account for differences in the formation of past tense. The fact that the future tense marker *p* in the middle group is sometimes realised as a voiceless stop [p] (as in *ke:ṭpe:n*) and sometimes as a voiced stop [b] (as in *uṇpe:n*) may seem a weakness in this classification (see below, pp. 262). But this can nevertheless be readily accounted for in terms of morphophonological rules. There is in fact good reason why Graul's system

should be the one that has come nearest to finding universal acceptance. The *Tamil Lexicon* is but one of a number of important publications to adopt it--though not in its simplest form. For the *Lexicon* has thirteen conjugations, the result of having separate classes for the variant past tense forms of the Graul groups I and IV, even though these differences are predictable on the basis of the final consonant of the root. Far from there being any need to increase the number of conjugations, it has been shown that if sufficiently complex rules are accepted, the verbal roots of formal Tamil can be reduced to three groups (Lisker 1951) and those of certain types of colloquial Tamil to two (Asher 1966).

3. Classification of Malayalam Verbs

There have been less attempts to classify Malayalam verbs than has been the case with Tamil. Two of the more important grammars by Europeans, for instance (namely Gundert (1962) and Frohnmeyer (1913)), do not concern themselves with this problem. Among the attempts that have been made, two of the more significant are those of Wickremasinghe and Menon (1932) and Kunjan Pillai (1965). The first of these has eight groups--five "regular" and three "irregular" (with a somewhat idiosyncratic use of these terms). Though this section on verbs (pp. 82–114) is by far the most interesting part of the book, the classification is less useful for comparative purposes than that given in the *Malayalam Lexicon*. Here Professor Kunjan Pillai divides Malayalam verbs into sixteen classes, thus erring, like the *Tamil Lexicon*, in the direction of generosity. For rules can be stated to make it possible to predict some of the differences in tense markers. The sixteen classes form two groups, depending on whether the marker of past tense is "*tu*" (which undergoes various morphophonemic changes) or "*i*".

These classes, with exemplificatory verbs are as follows:

	Citation form	*Present*	*Past*	*Formation of past*
(i)	*tu*			
1.	*aḻuka*	*aḻunnu*	*aḻutu*	*(u)–tu > tu*
2.	*uṇṇuka*	*uṇṇunnu*	*uṇṭu*	*ṇ–tu > ṇṭu*
3.	*aṭuka*	*aṭunnu*	*aṭṭu*	*ṭ–tu > ṭṭu*
4.	*aṭayuka*	*aṭayunnu*	*aṭaññu*	*y–n–tu > ññu*
5.	*araḷuka*	*araḷunnu*	*araṇṭu*	*ḷ–n–tu > ṇṭu*
6.	*akaḻuka*	*akaḻunnu*	*akaṇṇu*	*ḻ–n–tu > ṇṇu, nnu*
7.	*akaluka*	*akalunnu*	*akannu*	*l–n–tu > nnu*
				r–n–tu > nnu
8.	*aṭarkkuka*	*aṭarkkunnu*	*aṭarttu*	*kk–tu > ttu*
9.	*e:lkkuka*	*e:lkkunnu*	*e:ṟṟu*	*l–kk–tu > ṟṟu*
				ḷ–kk–tu > ṭṭu
10.	*akaykkuka*	*akaykkunnu*	*akaccu*	*y–kk–tu > ccu*
11.	*amsikkuka*	*amsikkunnu*	*amsiccu*	*i–kk–tu > ccu*
12.	*analkkuka*	*analkkunnu*	*anannu*	*kk–n–tu > nnu*
(ii)	*i*			
13.	*akaṟuka*	*akaṟunnu*	*akaṟi*	*i*
14.	*aṭaññuka*	*aṭaññunnu*	*aṭaññi*	*n–k–i > ññi*
15.	*aṭakkuka*	*aṭakkunnu*	*aṭakki*	*kk–i > kki*
16.	*aṭarttuka*	*aṭarttunnu*	*aṭartti*	*tt–i > tti*

Just as Lisker (1951) has demonstrated that there is no need to divide the verb stems of written Tamil into more than five classes (or three, if one allows the maximum amount of "hocus-pocus"), so it can be shown that considerably less than sixteen are really necessary for Malayalam. Thus Sekhar and Glazov (1961, 50-4) have only twelve. Though

there are certain differences of distribution of verbs among groups, this relative economy is achieved mainly by having one class for Kunjan Pillai's 10 and 11, and one for his 13–16. This is clearly justified, since, as has been pointed out above (p. 252), the verbs in Class 11 are grouped separately on the basis of etymology and not because the formation of tenses is in any way different from that of the mainly Dravidian verbs in Class 10. Similarly, although Classes 14-16 can be analysed as "compound" stems, these compound stems behave in exactly the same way as those of Class 13 as regards the formation of tenses.

Though both these classifications (Sekhar and Glazov's, and Kunjan Pillai's) are based above all on the surface structure of past tense, both allow that the consonants in the past tense markers--i.e. in verbs other than those having past tense in *i*-- are "phonetic variants" of *tu* when it is preceded by and combined with other consonants. Both, too, admit more than one past tense marker in some of their classes. Compare, for instance, the examples for Class 9 in the table above. Similarly Class 2 has verbs with past tense in *-ntu* as well as in *-ṇṭu*. The first of these alternants goes with vowel-final roots, the second with roots ending in *ṇ*.

Two things are clear from this: firstly that these classifications accept that certain alternations are phonologically conditioned, and secondly that the number of classes could have been considerably reduced if this possibility had been pursued further.

It can reasonably be argued that the most satisfactory classification of verbs in Malayalam (as Lisker implicitly argued for Tamil) is one that sets up the minimum number of classes that is consistent with complete predictability of

tense markers. If this principle is followed, then there is clear justification for Sekhar and Glazov's inclusion of Kunjan Pillai's Classes 13–16 in one class. The resulting class cannot, however, be grouped along with any of the remaining twelve classes, since it contains stems with phonological structures similar to those occurring in these other classes.

These remaining twelve do allow of further grouping. They fall into two sets as regards the formation of the present—one with present in *-kkunnu* (Classes 8–12) and one with present in *-unnu* (Classes 1–7); and since there are roots common to both these sets (*uṭay-*, for instance, occurs in Classes 4 and 10), these two sets seem to demand the setting up of different classes.

Within these two sets, however, further grouping is possible on the grounds that the consonant occurring in the past tense is often a matter of phonological conditioning, the relevant factor being the final phonological segment of the stem. This allows us to include Kunjan Pillai's Classes 1–3 in one class, in which final *ḻ* or *y* implies past tense in *tu*, final *ṇ* or *ṭ* implies past tense in *ṭu*, final *ṟ* implies past tense in *ṟu*, and stem ending in long vowel implies past tense in *ntu* (with shortening of stem vowel).[1] It further allows us to include Kunjan Pillai's Classes 4–7 in one class, in which stem-final *y* implies past tense in *ññu*, final *ḷ* implies past tense in *ṇṭu*, final *ḻ* implies past tense in *nnu*~*ṇṇu*,[2] and final *l* or *r* implies past

[1]Final *ḻ* and *y* (e.g. past tense forms *aḻutu* 'wept' and *ceytu* 'did' are Kunjan Pillai Class 1. Final *ṇ* and long vowel (e. g. past tense forms *uṇṭu* 'ate' and *ventu* 'burnt') are Kunjan Pillai Class 2. Final *ṭ* and *ṟ* (e. g. past tense forms *viṭṭu* 'left' and *peṟṟu* 'bore') are Kunjan Pillai 3.

[2] Depending on whether *ḻ* is retained in the past tense or not. E. g. *akaḻnnu*~*akaṇṇu*.

tense in *nnu*. Similarly, from Classes 8–11 one can form one class. Class 8, with past tense in *ttu*, has stem finals *r*, *ḻ*, *a* and *u*. Class 9 has two stem finals: the first, *l*, gives past in *ṟu* (e.g. *e:ṟṟu* 'received'); the second, *ḷ*, gives past in *ṭu* (e.g. *ke:ṭṭu* 'heard'). Classes 10 and 11, with stem finals in *i* (10 and 11) and *y* (10 only), have past tense in *ccu*. Class 12 remains a separate class because it contains stems with similar phonological structures as some in Class 8 (including stem-final *a*).

The result of this regrouping is five classes:

I:	including	Kunjan	Pillai	1–3
II:	,,	,,	,,	4–7
III:	,,	,,	,,	8–11
IV:	,,	,,	,,	12
V:	,,	,,	,,	13–16

If the regrouping is taken no further than this, the variant realisations of the "past tense morpheme {*tu*}" can be related to phonetic features of stem final. Thus retroflex stem final (e.g. *ṭ*, *ṇ*, *ḷ*) will produce *ṭu*, alveolar stem final (e. g. *l*, *ṟ*) will produce *ṟu*, palatal stem final (e.g. *y* or *i*) will commonly produce *ññu* or *ccu*. But if phonological conditioning is permitted to include features which lead to no obvious phonetic "explanation", then I and II in the new classification can be grouped together. This is becauce none of the Kunjan Pillai Classes 1–7 has stems with phonological structure the same as that of any stem in another class. The following notes make this clear:

Class 1:	restricted to	(*C*)*Vy*
		(*C*)*Vḻ*
,, 2:	,,	(*C*)*Vṉ*
		CV:(*ṉ*)

Class	3:	,,	*(C)Vṭ*
			(C)Vṟ
,,	4:	,,	*(C)VCVy*
			CV:y
,,	5:	,,	*(C)VCVḷ*
			CV:ḷ
,,	6:	,,	*(C)VCVḻ*
			(C)V:ḻ
,,	7:	,,	*(C)VCVr*
			(C)VCVl
			CV(V)r
			CV(V)l

If these facts are taken into account, the obvious regrouping is into four classes:[3]

I:	including Kunjan Pillai			1–7
II:	,,	,,	,,	8–11
III:	,,	,,	,,	12
IV:	,,	,,	,,	13–16

4. Classification and Comparison

Taxonomic classifications of verb stems of this sort clearly lead to a statement of the structure of the Tamil or Malayalam verb that is both economical and unambiguous. Its usefulness in the comparison of the two languages or in the comparison of two dialects or registers of the same language is less obvious. The reason for this is that if one wishes to compare the verbal systems of, say, Tamil and

[3] The use of Lisker's device (1951, 113–14) of "a morpheme $\{x\}$ meaning perhaps 'transitive of previous verb stem' and phonetically zero" would allow a further reduction. The argument for Malayalam would closely follow Lisker's account of Tamil.

Malayalam, or of written Tamil and colloquial Tamil, then whichever classifications one uses--the ones setting up relatively large numbers of classes or those with the minimum possible number--there is not always a readily statable simple set of correspondences between individual classes in different groups. For there is in most cases some criss-crossing of relationship between classes. A "simple set of correspondences" is here taken to mean that, if the number of classes in two proposed sets differs, this is the result of the division of the membership of single classes in the smaller among two or more classes in the larger set. But this is not entirely true when different sets established by various scholars are compared. Thus:

1. *Tamil Lexicon* (13 classes) & *Malayalam Lexicon* (16 classes)

TL	4	=	ML	4 and 6
,,	5	=	,,	13, 14, 15 and 16
,,	11	=	,,	8, 10 and 11
,,	13	=	,,	2, 3 and 7
ML	2	=	TL	7 and 13
,,	3	=	,,	6 and 13
,,	4	=	,,	4 and 13
,,	7	=	,,	8 and 13
,,	9	=	,,	9 and 10

2. *Lisker* 5-class set for written Tamil & *Asher* 2-class set for spoken Tamil

Lisker	I	=	Asher	I and II
Asher	I	=	Lisker	I, IV and V
,,	II	=	,,	I, II and III

3. *Lisker* 5-class set for written Tamil & *Asher* 4-class set for Malayalam

Lisker	I	=	Asher	I and II

Asher	I	=	Lisker	I and II
,,	II	=	,,	I and IV

It has been pointed out in a paper in the present volume (Schiffman 1969) that if languages are to be considered closely related, differences between them should be attributable to "differences in rules", with the possibility of assuming the same "underlying forms" for both. The above extracts from comparisons of different classifications suggest that it might be difficult to attribute differences in the verbal systems of written Tamil, spoken Tamil and Malayalam solely to rule differences In fact, however, it seems possible that a certain amount of reclassification would significantly change the picture.

The comparison of the *Tamil Lexicon* and *Malayalam Lexicon* sets, for example, could be made to look much simpler. The frequently recurring *TL* 13 could be removed, since it is merely a small set of mixed "irregulars" which with a little ingenuity could be fitted into other classes. As has been shown above (p. 256), *ML* 13-16 could be taken as a single class, as could 10 and 11.

The comparisons of (a) Lisker Written Tamil and Asher Spoken Tamil, and (b) Lisker Written Tamil and Asher Malayalam would be almost ideally simple but for the fact that in each case Lisker Class I has members occurring in both Asher Class I and Asher Class II.

It is the contention of this paper that, although the Lisker classification works perfectly well for Tamil, there is an acceptable alternative solution in one case. It is further contended that the confusion is entirely the result of the unnecessary establishment in the older classifications (e.g Graul 1855, Fabricius 1933, Arden 1954) of a

group of "middle verbs" -- distinguished on one side from "weak" conjugations, and on the other from "strong" conjugations.

It will be recalled that "weak" verbs have present tense marker *kiṟ* and future *v*, while "strong" have present *kkiṟ* and future *pp*. This is an unavoidable division in any discussion of the forms of Tamil (and Malayalam) verbs. The "middle verbs" have present tense in *kiṟ* and future in *p*. Lisker makes the essential point (p. 112) that, since "the class V future marker *p* is in automatic alternation with *v* after consonant", there is no need for a separate class. In doing away with this Class V, however, he appears not to have considered the possibility of distributing its members among *two* remaining groups.

Why should this be considered? It is because the traditional Class V contains two distinct types of verb. It is true that, as regards the spelling, all have present in *kiṟ* and future in *p*. But at the phonetic level *k* and *p* each represent two different sounds. Each can be tense and voiceless or lax and voiced. Verbs that have [k] as the initiating consonant of the present tense marker have [p] in the future tense. Verbs that have [g] as the initial consonant of the present tense marker have [b] in the future tense. This points to the advisability of disregarding the spelling in these cases and taking [kir] as the equivalent of *kkiṟ*, and [gir] as the equivalent of *kiṟ*. In other words, some of the traditional "middle verbs" are "strong" ([kir]), and others are "weak" ([gir]). Examples are:

1. "*Strong*":
   ke:ḷ – present tense *ke:ṭkiṟ–*
   vil – present tense *viṟkiṟ–*
2. "*Weak*":
   ka:ṇ – present tense *ka:ṇkiṟ–*
   tin – present tense *tinkiṟ–*

One can tentatively draw additional support for this argument from the spelling of equivalent Malayalam forms, where double *kk* is always retained in the spelling for "strong" verbs. Thus we find *ke:ḷkkunnu* and *vilkkunnu*, but *ka:ṇunnu* and *tinnunnu*.

If this readjustment in classification were made, the result would be that when Malayalam forms were compared with Tamil forms, or colloquial with written, no class in the larger of two sets would correspond to more than one class in the smaller set. A corollary of this is that if a set of classes were set up for the underlying forms of the verbs of Malayalam and Tamil, written and colloquial, the differences that occur in the forms of related verbs could all be generated by the application of appropriate rules.[4] Since it is clear that the largest set necessary for Tamil or Malyalam would be of five classes, the maximum number of classes for underlying forms would also be five. Examples of verbs that would be included in each of the five are (References are to *DED* numbering):

A.	**cey–*	'do'	1628
	**uṇ–*	'eat'	516
	**viṭ–*	'leave'	4419
	**peṟ–*	'bear'	3622
	**koḷ–*	'take'	1788
	**tin–*	'eat'	2670
B.	**uṭay–*	'break' (intrans.)	799
	**makiḻ–*	'rejoice'	3770
C.	**o:ṭ–*	'run'	877

[4] A full statement of these rules is in preparation.

D.	**eṭu-*	'raise'	723
	**kuḷi-*	'bathe'	1522
	**ke:ḷ-*	'hear'	1677
	**vil-*	'sell'	4448
E.	**kiṭa-*	'lie'	1277

5. Relationship between Formal Tamil and Malayalam and between Colloquial Tamil and Malayalam

In many cases the past tense forms (it is to be remembered that it is above all these that raise difficulties of classification) of Malayalam, formal Tamil and colloquial Tamil are sufficiently alike to be generated by the same rules. It is of interest to note that where the surface structure of two is relatively similar and where both differ from the third, colloquial Tamil seems as likely to be found in the company of Malayalam as in that of formal Tamil. To a large extent this is the result of the palatal features in the past tense markers of Malayalam and colloquial Tamil, where there is none in formal Tamil. (It is clear from Ziegenbalg (1716) that this has been a characteristic of colloquial Tamil for at least a quarter of a millenium.)

The following examples illustrate this point:

	Formal Tamil	*Colloquial Tamil*	*Malayalam*	*Meaning*
1.	*ceyt–*	*ceñc–*	*ceyt–*	'did'
2.	*uṭaint–*	*uṭañc–*	*uṭaññ–*	'broke'
3.	*aṭitt–*	*aṭicc-*	*aṭicc–*	'beat'
4.	*konṟ–*	*konn–*	*konn–*	'killed'
5.	*viṟṟ–*	*vitt-*	*viṟṟ–*	'sold'
6.	*naṭant–*	*naṭant–*	*naṭann–*	'walked'
7.	*vant-*	*vant–*	*vann–*	'came'

The odd one out is formal Tamil in three cases (2, 3, 4) colloquial Tamil in two cases (1, 5), and Malayalam in two cases (6, 7). This is clearly too minute a sample to show which pair of the three verbal systems bears the closes resemblances as regards the formation of the past tense. It suggests, however, that there is a point of comparison here that might merit detailed investigation.[5]

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[5] It needs to be added that the accumulation of an adequate number of examples would raise certain problems. In the case of some verbs in class C (p. 263, above), for instance, it would not be easy to decide which should be stated to be the odd one out. An example is the past tense of *va:ṅk–* 'to get' (*DED* 4372). A form commonly used in collquial Tamil by some speakers, especially in rapid speech, is *va:ṅn–* 'got' (i.e. without the phonetic segment [g] that is found in other forms of the verb). Is this to be considered more like the formal Tamil *va:ṅkin–*, or more like the Malayalam *va:ṅṅi*, which also has no cessation of nasality in the velar segment of the utterance? The case of the forms of the 'verbal participle' ('*vinai eccam*'), of course, raises no such difficulty, since Malayalam *va:ṅṅi* here stands apart from *va:ṅki*, which is common to both colloquial and formal Tamil. The conclusion to be drawn from all this, however, is merely that care would have to be exercised in interpreting any statistics resulting from an examination of the question at issue.

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(*This paper could not be presented in the seminar since it arrived late.*)

The Chronology of Dravidian Languages

A Lexico-statistic Analysis*

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1. Introduction

In historical linguistics there are two kinds of dating the metric or chronological dating and the topological or relative. The topological dating does not give any chronological data; it just tells which occurred before and which occurred after, this is what the comparative method does. Two aspects for instance are found in Tamil: one is the loss of initial *c– and the other is the law of palatalization where *k > c. The comparative method here helps us to find that the loss of initial *c– preceded the law of palatalization; for the initial *c– due to palatalization is not lost. The metric dating, on the other hand provides the measurement of elapsed time between events.

Glottochronology is a recent technique which helps us to dating, approximately chronologically. In other words the approximate metric dating is provided by this method. According to Morris Swadesh, this method is said to provide "a time dimension for ethnic contacts shown by linguistic

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*This paper is published here as it was presented in the seminar.

relationships." This method is applied in this paper to the Dravidian languages Tamil, Malayalam, Kannada, Tulu, and Telugu. By applying this method we are able to get only the most probable date of occurrence of any event. Here we try to find out the probable date of separation of each language from the other by comparing the modern stages of the above mentioned five languages. This kind of dating is a special variety of metric dating called the likelihood variety.

This method of glottochronology involves three principal variables: a rate of retention, a period of time and the fraction of corresponding test-list equivalents. This method deals with the vocabulary which is called basic. The semantic equivalents for each item in this basic vocabulary are chosen in the languages to be compared. It has been found that it is possible to calculate the rate at which the items are replaced in due course. Consequently if we know the percentage of retention in a pair of languages, the period of time taken for such retention can be calculated by this method. The latest revision gives the following formula where there are two types of cases. If we compare the two stages of a single language, it is said to be a unilinear problem or a control case for we get the period arrived at checked by means of known data. In such a case, when the percentage of retention per cent of time is known the period of time and the fraction of corresponding test-list equivalents are known. We have to find the rate of retention per millenium. If we compare two languages emerging out of a single ancestor, we refer to this as a problem of divergence or the case of application.

In addition to the knowledge of time-depth, this method provides a new way for establishing sub-groups within the family of languages. The results so far obtained seem to fit with the other evidences such as provided by archeology, ethnology and cultural history.

Methodology

A set list of test items, at present, of 100 items is used in the methodology of this linguistic dating. This is the "basic" or "fundamental vocabulary". These set items are expressible in some convenient translation language, in English. It is to be understood, that meaning is here that what is meant to be expected or intended for each item independent of any semantic peculiarities in the translation language. For example, foot means the body-part but not the measure one-foot. For each test item the normal every day equivalent in each language is listed. For instance, in certain dialect of Tamil we would list *pa:tam* for the former and *aṭi* for the latter; for "head" the words in Tamil, Malayalam, Kannada, Tulu and Telugu are *tale*, *tala*, *tale*, *tare* and *tala* respectively. For each item just one word is taken in each language. Frequency, universality (commonness) and persistence (resistance against replacement) are the three principal factors to be considered in the selection of the words for the items. The lists for all these languages are then set parallel and scored for cognate or non-cognates. It is important to find out whether the cognate in any language is independently retained from the proto-language or borrowed later from the sister languages. The former is only needed for glottochronology. Any kind of borrowing, either from the members of the same family (as in Tulu *na:lige* 'tongue' from Kannada); or from those of the other family of languages (as in Tamil *pa:tam* 'foot' < Skt.) are scored as non-cognates in linear cases. The words for 'head' in all the languages are scored for cognates (as plus) and for 'tongue' in Tulu is scored for non-cognate (as minus). The cognates are counted and the percentage of cognates is determined with respect to the total of cognate and non-cognate pairs. The total is the number of items in

the test–list or the available number of items in the languages in concerned. When we compare all the four languages, Malayalam, Kannada, Tulu and Telugu with Tamil, the number of native items available in Tamil are 90 (i. e. in the 100 item list); of these the number of cognates found in Malayalam, Kannada, Tulu and Telugu are 65, 49, 48, 38 items respectively. The percentages are 72.2%, 54.4%, 53.3% and 42.2% respectively. The percentages relative to Dravidian languages are given in pairs and the time of divergence is given on the probablity basis.

Results of Lexico–statistic counts in five Dravidian languages

Languages	Retained (%) portion of the list	Approximate period of Divergence between
Tamil × Malayalam	74.4%	1100 - 1500 A.D.
Tamil × Kannada	60%	400 – 1000 A.D.
Tamil × Tulu	52%	200 A.D. – 800 A.D.
Tamil × Telugu	42.2%	400 B.C. - 400 A.D.
Malayalam × Kannada	61.1%	500 A.D. – 1100 A.D.
Malayalam × Tulu	51.1%	1 A.D. – 800 A.D.
Malayalam × Telugu	37.8%	800 B.C. - 100 A.D.
Kannada × Tulu	57.6%	300 A.D. – 1000 A.D.
Kannada × Telugu	49.9%	300 B.C. – 500 A.D.
Tulu × Telugu	37.5%	800 B.C. – 1000 A.D.

3. Sub-grouping of the Dravidian Languages

By applying the method of characteristic vocabulary index, we find that Tamil and Malayalam; Kannada and Tulu are immediately related pairs. Telugu is far away from the other four languages, Tamil, Malayalam, Kannada and Tulu.

The order of immediate relationship is given in the descending order, viz., Tamil, Malayalam, Kannada, Tulu and Telugu. The sub-groupings of the Dravidian languages is made here on the basis of the linguistic distance, following Swadesh. The unit for the linguistic distance is taken as a millenium. If the linguistic distance is more than five-tenths of a unit, then the languages compard are two different languages. Accordingly, Tamil, Malayalam, Kannada, Tulu and Telugu are separate languages. Further, if the linguistic distance is two or more units then they can be combined as branches and sub-divisions according to their relationships to the stock as a whole. The linguistic distance between Telugu and the other four languages is more than 2 units. In the case of Kannada it is only 1.9. But, the reason behind it is the greater amount of contact between Kannada and Telugu under the Vijayanagar kingdom. Telugu belongs to a separate division different from that of the other four languages.

4. The Strategy of Lexico-statistics

The idea of the basic vocabulary has been accepted by all linguists. It was already exposed by many, who had not any idea of such a method as this. The idea of having a universal test-list does not seem to give the expected goal of glottochronology. As Kroeber suggested, we can have separate lists for separate families, so that we can obtain concise and precise conclusions regarding individual families which will be a preliminary to broaden our concept for covering wider range. It may be we can have supplementation according to the suggestion of Gudschinsky. Perhaps the method can provide us with worthy results, if we can have many more applications to many unrelated and geographically separated languages.

There are exceptions to this formula when there is greater contact all of a sudden established between any two distant languages; or when there is a fashion for restoring literary or archaic words or when there is a greater loss of words due to tabu and other anthropological reasons. The exception was illustrated by Kannada becoming nearer to distant Telugu.

Apart from the one hundred items the publication of the Madras University, *Dravidian cognates* I volume was used. This starts with 2000 items of which 1962 alone are found in Tamil, 1961 only in Malayalam, 1368 only in Kannada 1145 only in Telugu and 948 only in Tulu. These work out as 98·1%, 84.55%, 68.4%, 57.25% and 47.4% of retention According to this Tulu which belongs to the South Dravidian is further removed whilst Telugu becomes nearer. This exception also proves the greater contact of Telugu. It should also be remembered that the Dravidian cognates list is not restricted to basic items but includes many cultural terms relating to worship, culture, building etc., where this greater contact usually works.

Subject to these exceptions this is the only method which would provide us some approximate time-depth. This method is of immense use for the anthropologist, as this method brings out the early stages of a language in calibration with time.

"Lexicostatistics is not a short–cut; it does not replace other methods and information, but must be incorporated with them into a consistent body of knowledge."

(*Participants in the discussion following the presentation of this paper in the seminar: Bh. Krishnamurti, S. Agesthialingom, John Marr, M. Andronov, N. Kumaraswami Raja and S. Rudin.*)

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Errata

Page reference	Error	Correction
(p. 9, Figure 3)	'Someone'	'Some one' ↓ φ
(p. 12, 25c.)	*o:dalpa:ṭṭa*	*o:dalpaṭṭa*
(p. 12, 26d.)	*a:ra:lo*	*a:ra:lo:*
(p. 20, line 9)	*aṭittatu*	*aṭaittatu*
(p. 26, fn. 11, 2nd line from below)	*ya:vaṟṟ*	*ya:vai*
(p. 111, line 12)	Kol. *reṇḍ*	Kol. *indig*
(p. 124, 7th line from below)	and the	and then
(p. 188, CONSONANTS chart)	Send *m, v* under *p, b;* *s, n, l, r,* under *t, d;* *ṣ, ṇ, ḷ* under *ṭ, ḍ* and *y* under *c, j.*	
(p. 190, line 9)	*tempi*	*tembi*
(p. 191, line 16)	*kanna:lamu*	*kaṇṇa:lamu*
(p. 202, 169.)	*yuruka*	*yeruka*
(p. 247, line 7)	*parsentation*	*presentation*
(p. 265, line 4)	closes	closest